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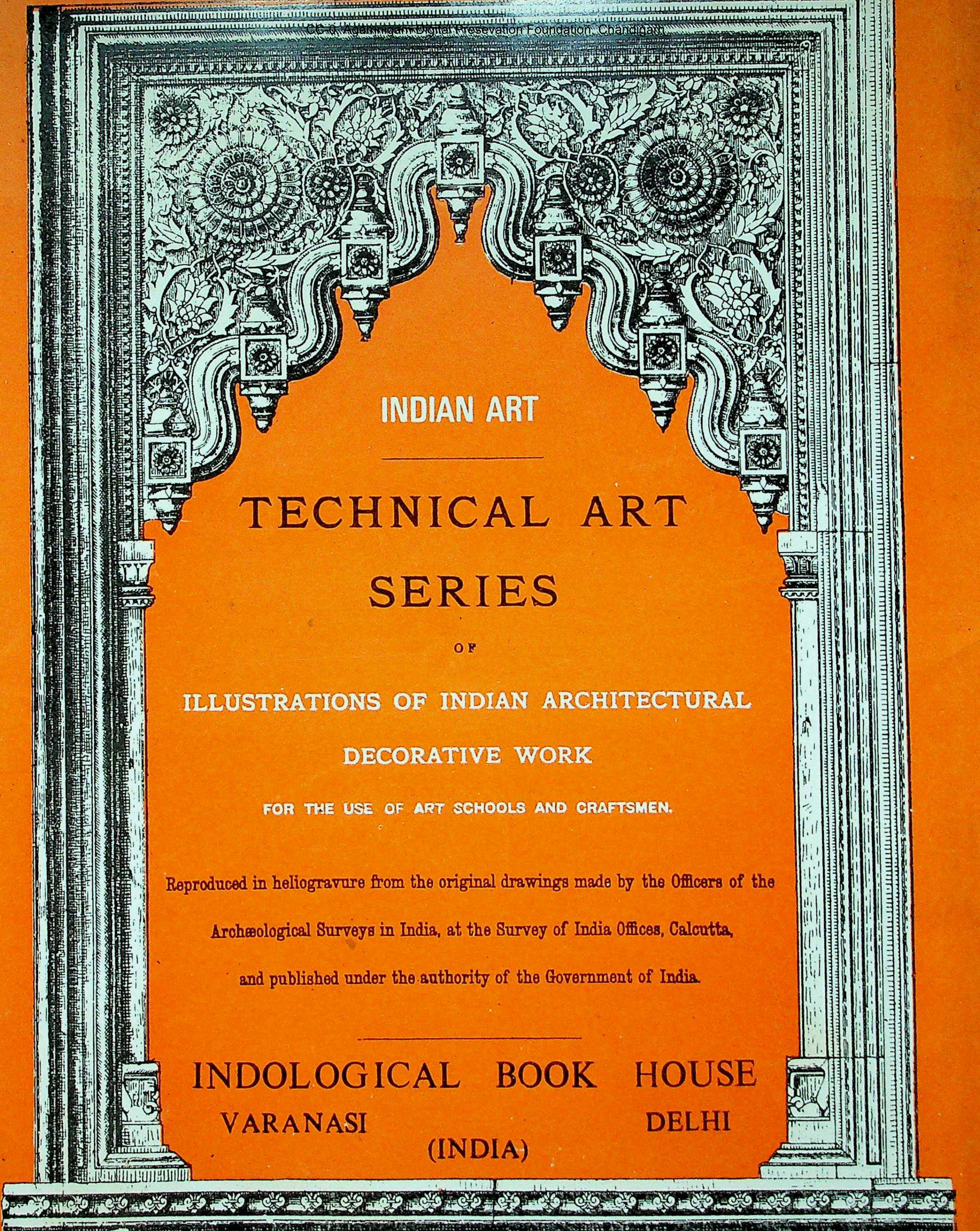


INDIAN ART

TECHNICAL ART SERIES

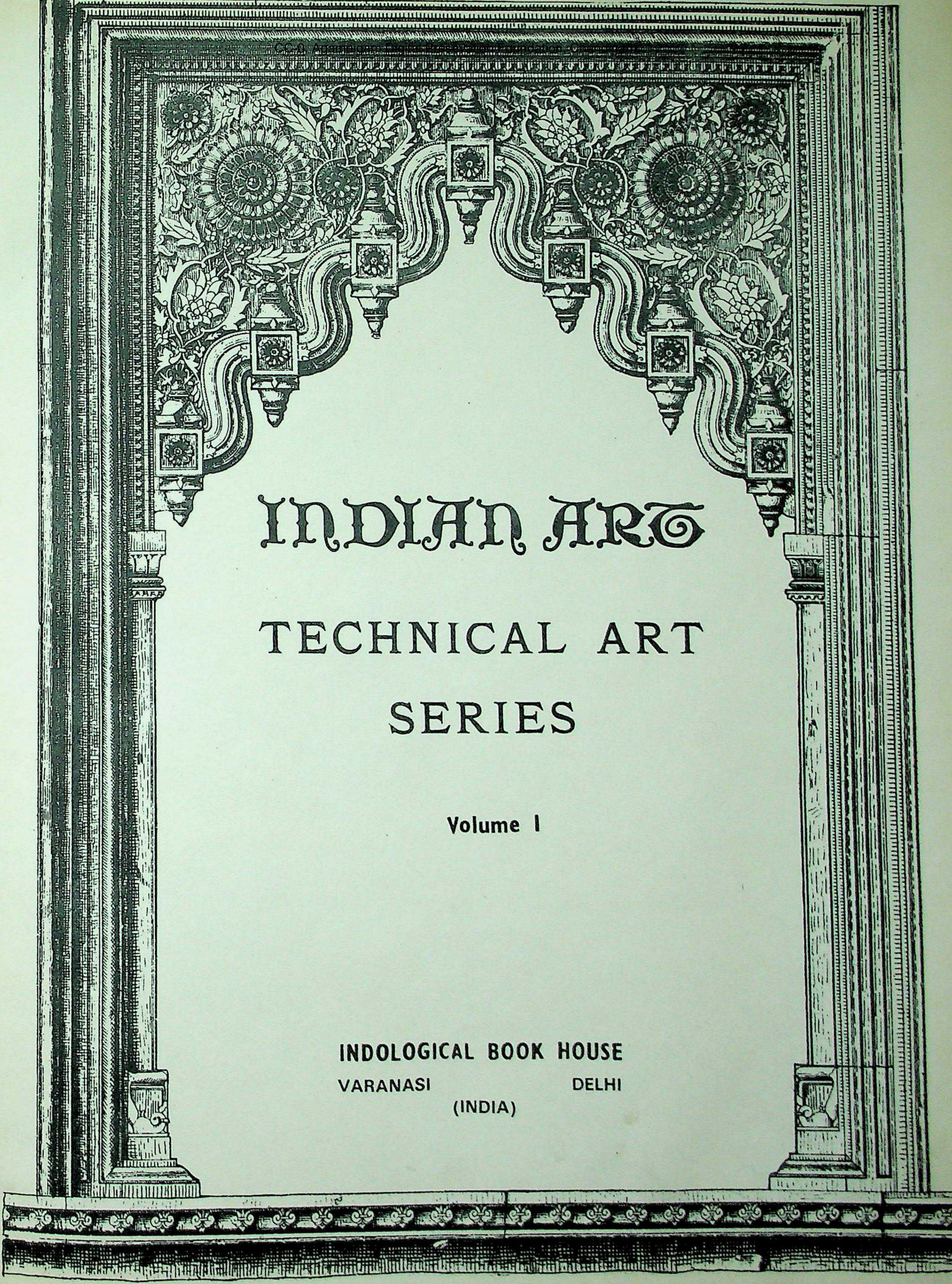
OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the Archæological Surveys in India, at the Survey of India Offices, Calcutta, and published under the authority of the Government of India.

INDOLOGICAL BOOK HOUSE
VARANASI DELHI
(INDIA)



INDIAN ART

TECHNICAL ART SERIES

Volume I

INDOLOGICAL BOOK HOUSE
VARANASI DELHI
(INDIA)

Printed in India

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INTRODUCTION

Mr. E.C. Buck, Secretary to the Government of India, submitted a draft "Scheme for the promotion of Industrial Arts of India," in 1883. He suggested appointment of committees from the national level down to the local. One of the functions of the local committees was to "encourage the Industrial Arts by the establishment of schools, the supply of patterns, the communication of information, the collection of subscriptions, by holding exhibitions, or offering prizes, or in any other manner which may approve itself to them."

Technical Art Series was promoted in pursuance of this recommendation in 1886. Two drawings of excellent quality were issued in that year, followed by four in the following year and progressively more in the subsequent years. Each drawing was preceeded by a short note by the great pioneer in Indian archaeology, James Burgess.

The plates were issued "as illustrations of Native art for the use of Technical Art Schools, Drawing Classes, practical workmen and others." The intention was not to provide craftsmen with working drawings, "but to give them ideas which they can work up for themselves in their own way, "but the drawings, that were selected for the first twelve years, were chiefly devoted to exhibit the wealth of our architectural decorations and ornamentations. The reason seems to be the fact that the series consisted of "selections from the drawings prepared for the illustration of the reports of the Archaeological Survey of India."

Certain points arose out of linking the Technical Art Series with the Archaeological Survey of India Reports. The size of the Reports was smaller than that of the Technical Art Series which used the same format as the Journal of Indian Art (later Journal of Indian Art and Industry), which meant preparing new plates for the Technical Art Series. Another problem concerned size of the drawing proper. The size of the illustration in the Reports was small and for the Series, it had to be large enough "to render the details of each drawing with clearness and definition sufficient to enable workmen to apprehend and utilise them, either in larger or smaller size as they may require for their own purposes." The third impact was on the choice of drawings. Chosen from ASI Reports, the selected works were illustrative of architecture, ignoring other crafts such as: metal work, ivory, wood work, damascene work, embroidery, etc.

Keeping the interests of all the craftsmen in mind, E.G. Havell, who took over in 1896, started a new series in 1898. He prefaced the drawings for that year with the following note:

"As the scope of the Technical Art Series has been confined mainely to acrhitectural detail ever since its first publication, it is considered that the time has come to add to its usefulness by illustrations of other branches of Applied Art. It would be well for those connected with Technical Art Schools, and others who interest themselves in practical design, to bear in mind that, in all Applied Art, processes and materials have a direct and inseparable connection with style of design: a design which is good in stone carving may be bad if copied in metal; another which is harmonious when painted on a vase may be indifferent, or impossible of execution, in a textile fabric. Those who make use of the illustrations in the Technical Art Series and other publications as patterns to be copied should be very careful to consider the technical limitations and possibilities of the materials and processes employed. It would be a safe rule for those who have not studied the theory and practice of ornamental design never to copy a design except by the process in which it was originally executed."

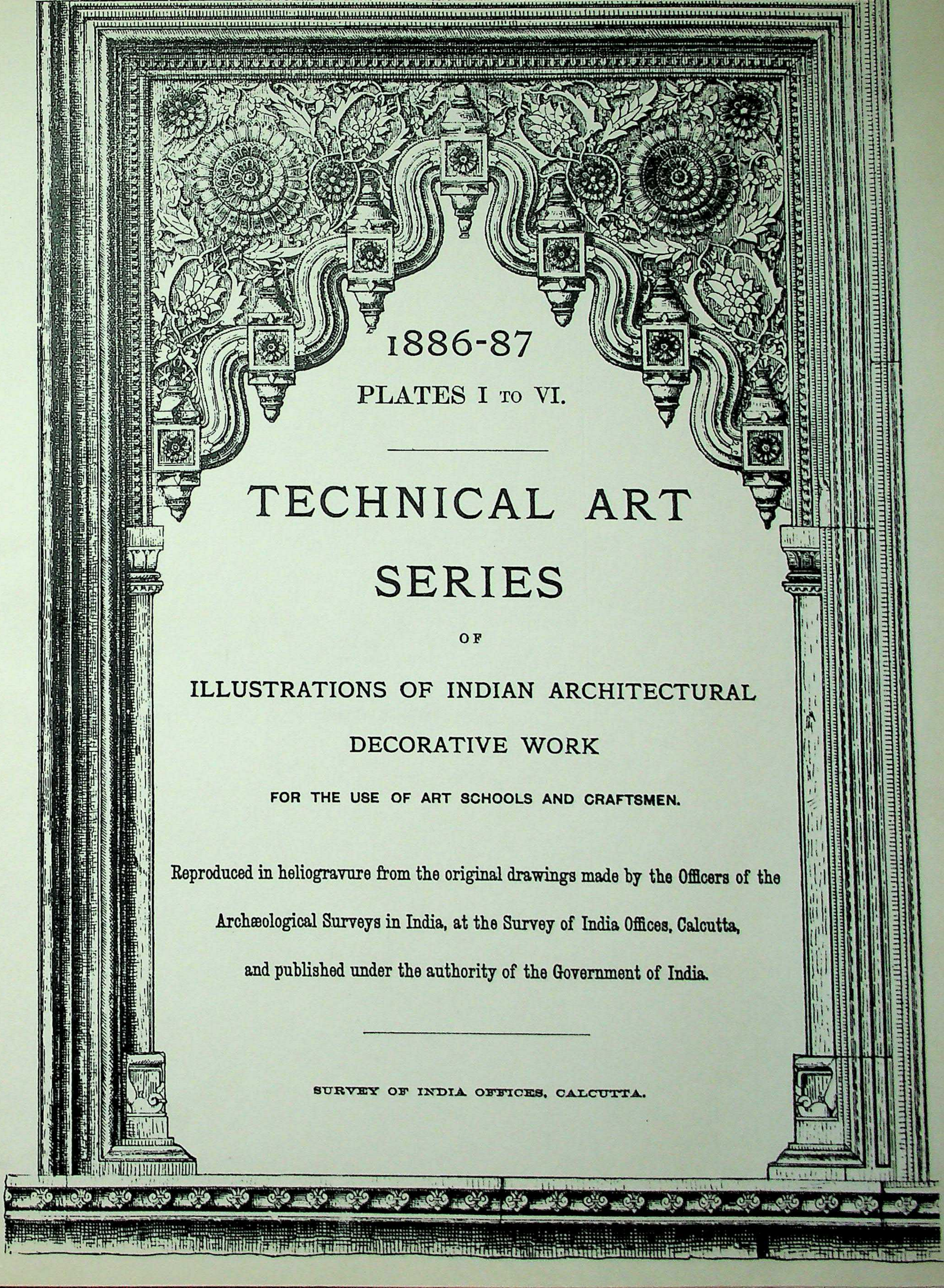
Two years later, Mr. Havell was hopeful that he would be able to give some illustrations of Indian miniatures although he was conscious of the work being exceedingly difficult to produce satisfactorily, and for that reason, it seems, he desisted from publishing any miniatures.

Although Havell succeeded in providing artisans and craftsmen of diversified interests with samples of artistic objects of everyday use, such as *pan* boxes, *hukkah* bottoms, bowls, teapots, trays, lamps, ornaments, *repousse* panels and jars, embroidery designs, incense burners, etc., in a wide range of media, such as: copper, bronze, brass, steel, gold, silver, blackwood, sheesham, sandalwood, bone, ivory, clay, etc., he failed to represent fine art—sculpture and architecture—significantly or even sufficiently. The quality of drawings and etching before 1898 was so good that it can not be minimised by even the best of photographs. How well a simple but forceful line, emphasizing the essentials and eliminating the shadows, depth and details of a photograph in halftone, can effectively bring out the beauty of a sculpture may be visualized in the illustrations of the ever-giving mother Lakshmi (Plate I, 1897). This masterpiece of Mathura Art is now in the collection of the National Museum of India, New Delhi.

The usefulness of many of the drawings to historian, conoisseur, craftsman and art schools cannot be exaggerated even today. The drawings of architectural members are also important more so to day for they show what the artist saw eighty to ninety years ago. The value of the notes by such experts as James Burgess, Henry Cousens, A. Fuhrer, Edward W. Smith, Alexander Rea and E.B. Havell cannot be under-estimated.

The plates are "not arranged in sequence based on age, character, locality, or other link of connection", but were bound "in the order of publication." To make the series, which was discontinued in 1908, more useful to its users and more easilly accessible, a classified list of contents is given at the end of the second volume, along with an index of site names, subjects etc.

R. P. HINGORANI



1886-87

PLATES I TO VI.

TECHNICAL ART SERIES

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SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

I.—Carved Stone Ceiling from Ganjigatti in Dhârwâr District.

II.—Central Mihrâb in Bilâl Khân Qâzi's Musjid at Dholkâ in Gujarât.

III.—Door from the Temple of Kâsivisvesvara at Lakkundi in Dhârwâr.

IV.—Ceiling Panel from a Hindu Temple at Vadnagar in Northern Gujarât.

V.—A Ceiling Panel from Anhilvâda Pâtan, North Gujarat.

VI.—Central Area in the Roof of the Mandapa, or Hall, of the Temple at Ittagi.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK.

PLATES I to XIX.

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The object of the series and the necessity for limiting the size of the drawings and reproductions are fully set forth in the following extract from a Resolution of the Government of India in the Revenue and Agricultural Department, No. $\frac{1}{1\cdot8}$, Arch., dated 5th May 1890 :—

> "2. The main object of the series is not to provide craftsmen with working drawings, but to give them ideas which they can work up for themselves in their own way. The series consists of selections from the drawings prepared for the illustration of the Reports of the Archæological Survey of India, and by the use of the same plate for both purposes a great saving is effected in expense, time and labour. But the size of the Survey Reports being only 13″ × 9¾″, the designs are in some cases on too small a scale to serve the purpose of the Technical Series without enlargement. For the Technical Series the size of plate adopted is the same as that of the Indian Art Journal. Besides being a convenient size in itself, it admits of any drawings suitable for that purpose being utilised in the illustration of the Journal. It is also sufficient to allow of enlargement of the original drawings where enlargement is necessary to shew details of designs clearly. Plates of a larger size would be inconvenient and expensive to print. The Government of India have therefore resolved that the size 15″ × 11″ should be adhered to as far as possible for the Technical Art Series.
>
> "3. The variety of objects to be dealt with renders it impossible to lay down any uniform scale for either reproductions or drawings. The point to be borne in mind is that the scale employed should be sufficiently large to render the details of each drawing with clearness and definition sufficient to enable workmen to apprehend and utilise them, either in larger or smaller size as they may require for their own purposes."

A new series is now under issue, in which the drawings are of a simpler character and more suitable for working purposes, in accordance with the system originated by Colonel Jacob in his admirable "Jaipur Portfolio of Architectural Details."

TECHNICAL ART SERIES-1886. PLATE I

GOVT. ARCHÆOLOGICAL SURVEY OF WESTERN INDIA

No. 601.

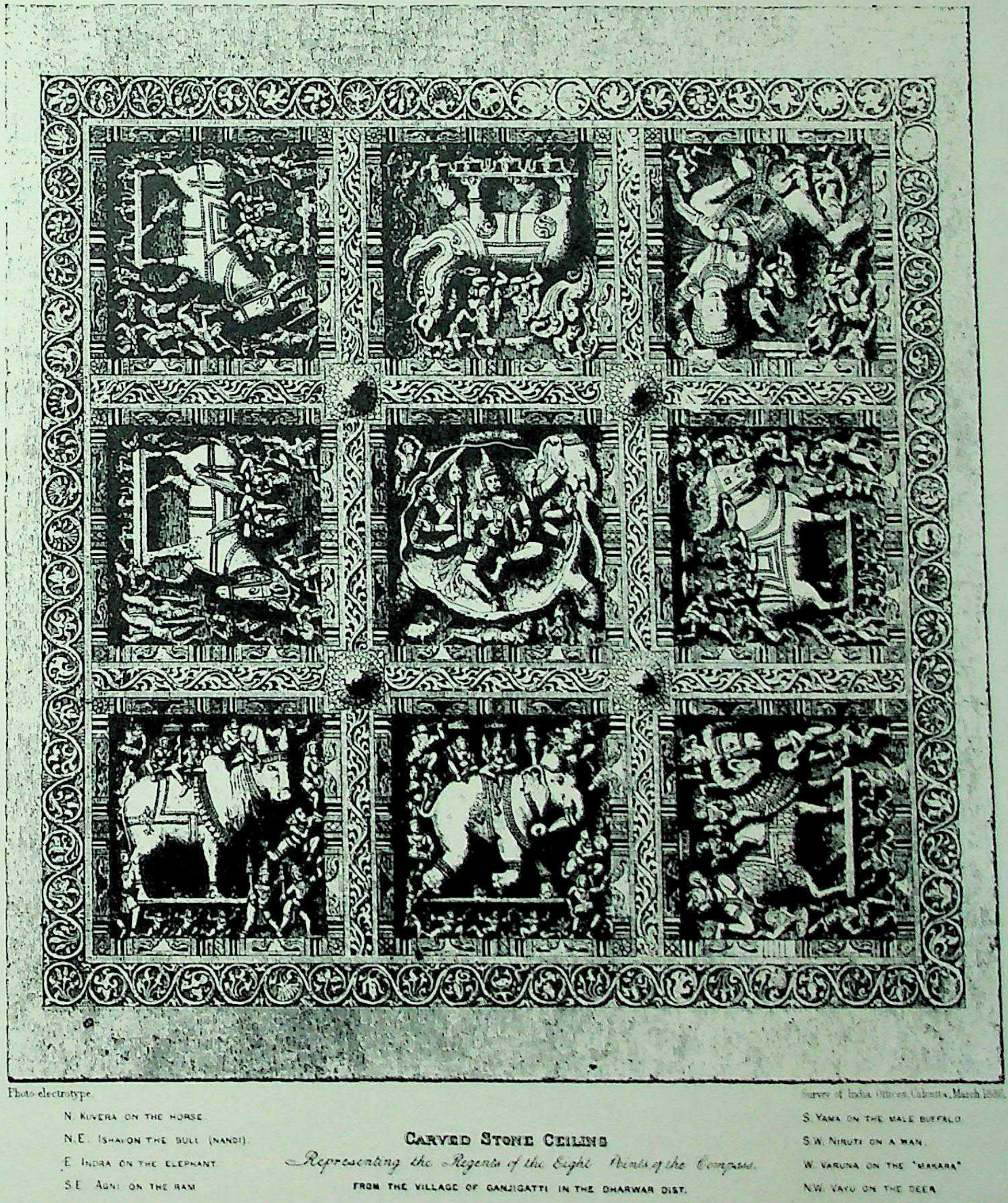

Photo-electrotype.

Survey of India Offices, Calcutta, March 1886.

N. KUVERA ON THE HORSE.
N.E. ISHA ON THE BULL (NANDI).
E. INDRA ON THE ELEPHANT.
S.E. AGNI ON THE RAM.

CARVED STONE CEILING

Representing the Regents of the Eight Points of the Compass.

FROM THE VILLAGE OF GANJIGATTI IN THE DHARWAR DIST.

Scale One Twelfth.

S. YAMA ON THE MALE BUFFALO.
S.W. NIRUTI ON A MAN.
W. VARUNA ON THE "MAKARA."
N.W. VAYU ON THE DEER.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK.

PLATES I to XIX.

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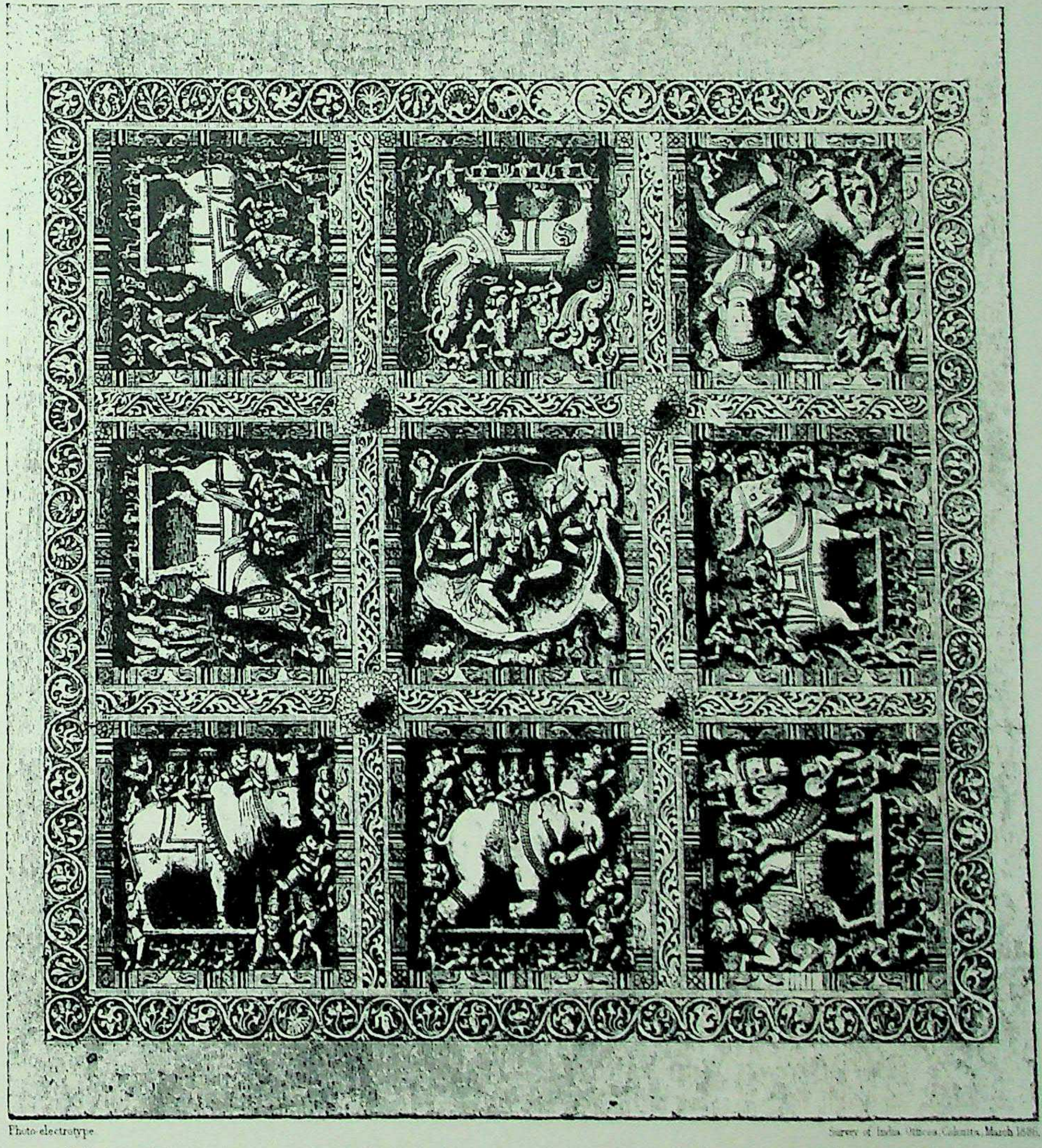

Photo-electrotype

Survey of India Offices, Calcutta, March 1886.

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W. VARUNA ON THE "MAKARA"
N.W. VAYU ON THE DEER

Scale One Twelfth

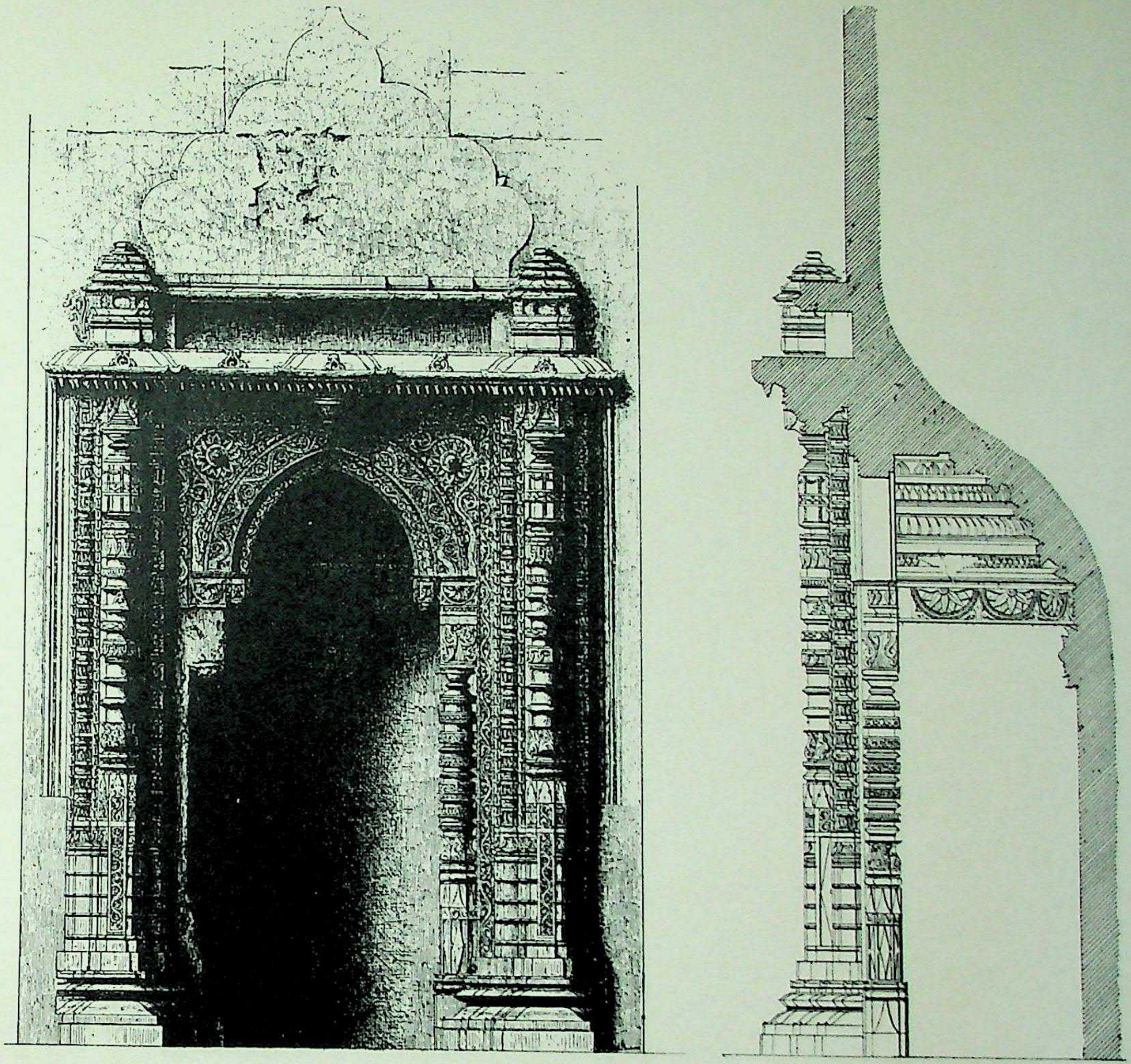
PLATE II.

CENTRAL MIHRÂB IN BILÂL KHÂN QÂZI'S MASJID AT DHOLKÂ, IN GUJARÂT.

THE Muhammadan architecture of Gujarât is perhaps the finest style of the kind in India. The buildings there date from the early part of the fourteenth century till the end of the sixteenth, and are chiefly to be found at Ahmadâbâd, Dholkâ, Champanir, Kambhay, etc. The *Mihrâbs* or *Qiblas*, of which there are usually from three to seven in the west or back wall of every mosque, in front of which the worshippers make their prostrations, as in that they are facing towards Mekka. The Mihrâb is a recess in the wall, and is directly derived from the Apse or Absis of the early Basilicas of the Christians which the Muhammadans appropriated in Syria and Egypt. In Upper India they are often of considerable width and polygonal in plan. In Gujarât they are small and mostly semicircular or rectangular, and constructed of marble. The example in this plate is somewhat damaged, but is an exceedingly good specimen of the first half of the fourteenth century, when Gujarât was under the Delhî Padshâhs. It is drawn to a scale of 1-20th, or 6-10ths of an inch to the foot. The width of the entrance was 2 feet 8 inches, but the left-hand colonnette has been broken away; inside it is 3 feet 6 inches wide and 2 feet 3 inches deep. The upper portion is roofed in by a sort of half dome formed by a series of neatly-carved mouldings, shown in the section. In the centre of the back is a projecting rosette, where, in the north and east of India, we should have a representation of a lamp or censer.

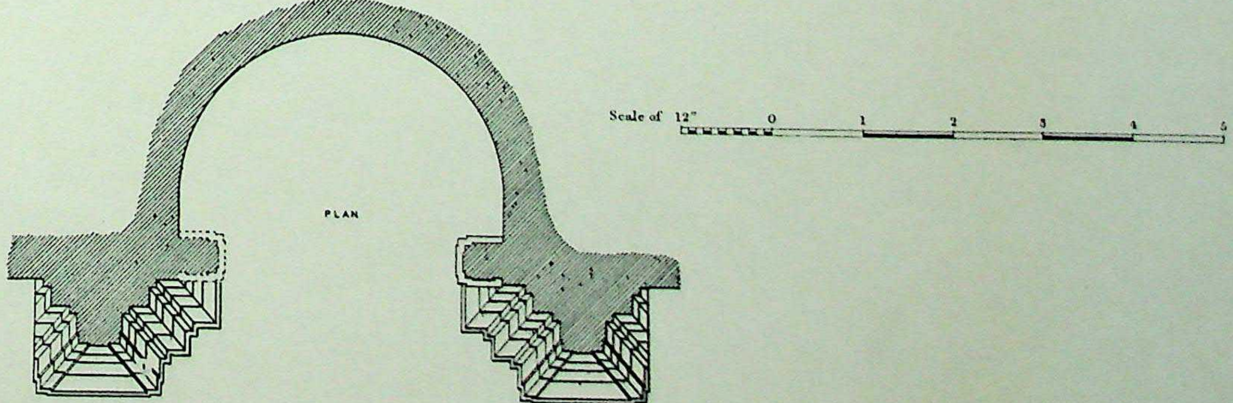
The architecture of this is structurally trabeate; a pillar in almost full relief on each side, Hindu in the richness of its details, supports a well-projected cornice of which the lower edge is enriched with guttæ and a large central pendant boss, while its upper line is broken at intervals by small vertical carved facets resembling *crosses entablées*. Over this is a recess in which was once an Arabic inscription, now removed; and above is another moulding supported by neatly-carved blocks at each end. This was again surmounted by a pediment now chipped off.

The inner area of the front has a colonnette on each side, of which the left one is gone, carved like ivory work, and supporting an arch beautifully enriched with surface carving, and inside which is hung another, smaller and strictly ornamental. The richness and harmony of the carving on this Mihrâb deserves a careful study, and the design will suggest applications in silver and ivory work.



FRONT ELEVATION.

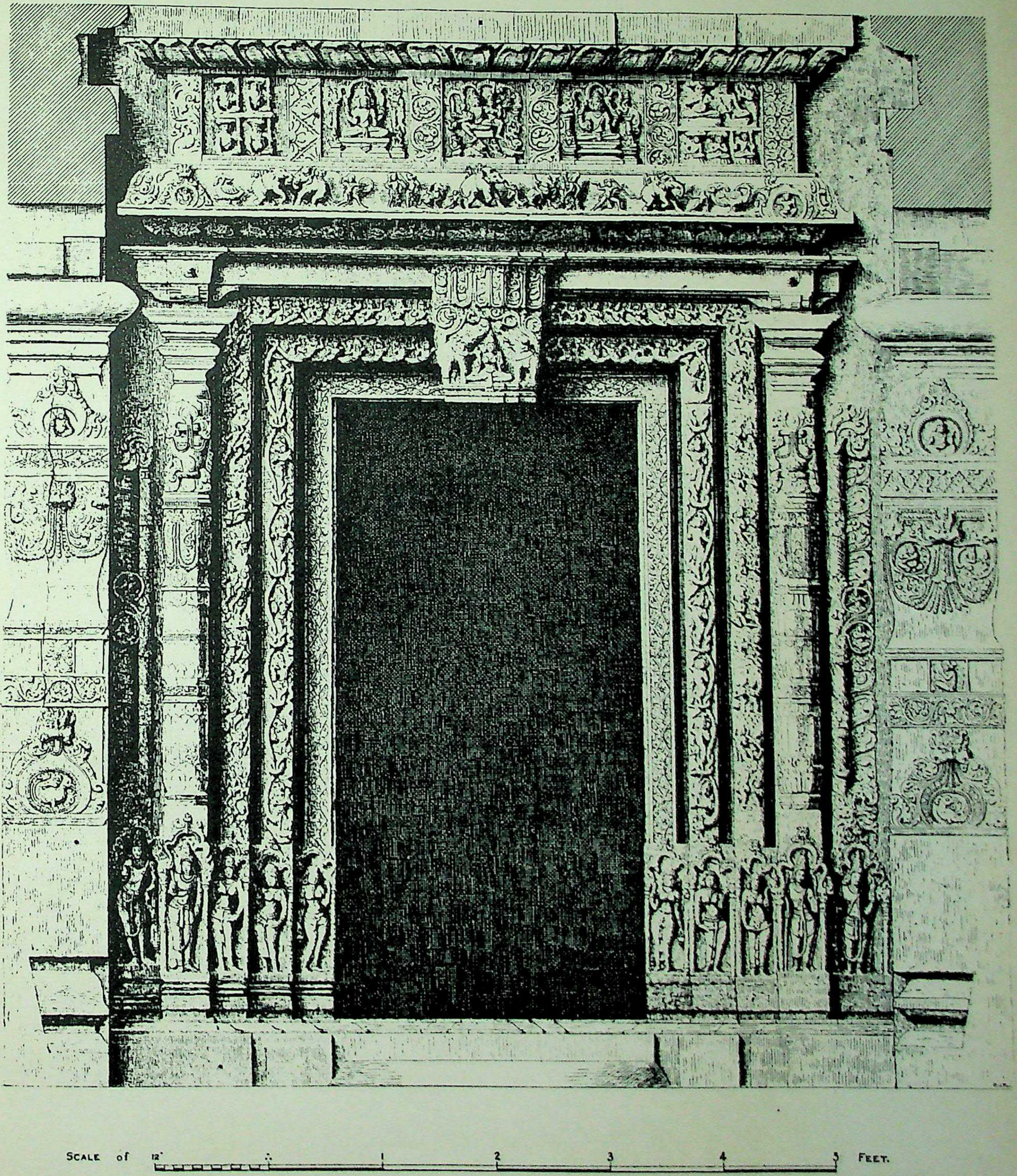
SECTION



PLAN

CENTRAL MIHRAB IN BALAL KHAN QUAZIS MOSQUE AT DHOLKA-GUJARAT

ARCHÆOLOGICAL SURVEY OF INDIA


SCALE of
12"
∴
1
2
3
4
5
FEET.

DOORWAY FROM THE TEMPLE OF KÂSÍVISVÉSVARA, AT LAKKUNDI, DHARWAR DISTRICT

PLATE IV.

CEILING PANEL FROM A HINDU TEMPLE AT VADNAGAR IN NORTHERN GUJARÂT.

VADNAGAR is a very ancient town in the Gaikwar's territory in Northern Gujarât. It is the original seat of the Nâgar Brâhmans, and in early times it seems to have been a capital or principal city, and was then called Ânandapura. It has still some eight Śaiva and two Jaina temples, but in the sixteenth century Abul Fazl mentions that it had three hundred temples.

This ceiling-slab differs very markedly from that on Plate I, and is quite unique. The central circle, within a border of rosettes, is filled by sixteen men arranged with their legs intertwined towards the centre, each holding a double-edged sword in his right hand and which passes behind his head, whilst with his left he clasps the right hand wrist of his neighbour. The spandrils have been ornamented with grotesque faces (*Kirttimukhas*) and tracery, but three of them are chipped off.

ARCHÆOLOGICAL SURVEY OF WESTERN INDIA

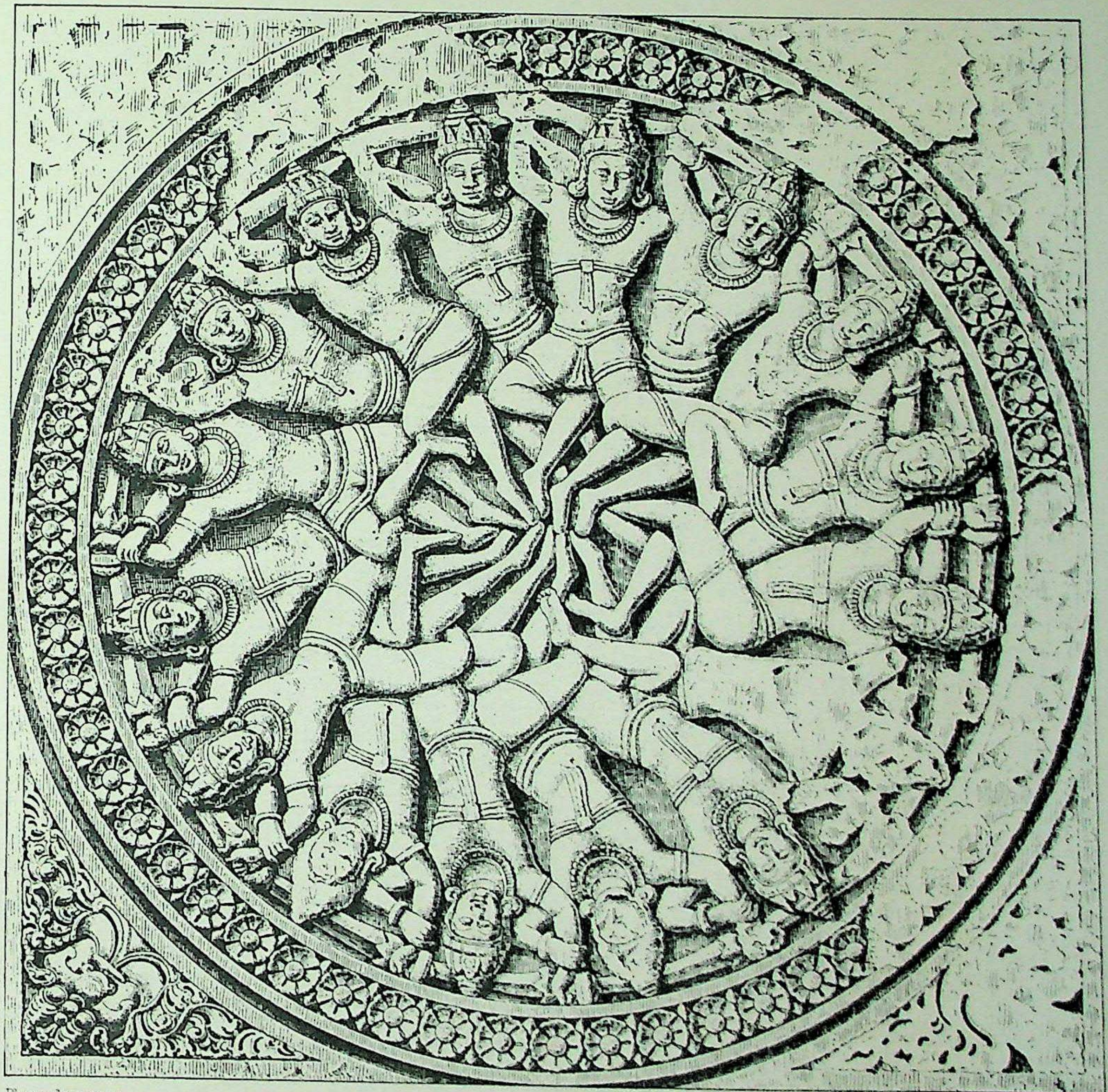


Photo-electrotype.

Survey of India Offices, Calcutta, August 1887.

CEILING PANEL

FROM A HINDU TEMPLE AT VADNAGAR, NORTH GUJARAT

Scale One-Fourth

PLATE V.

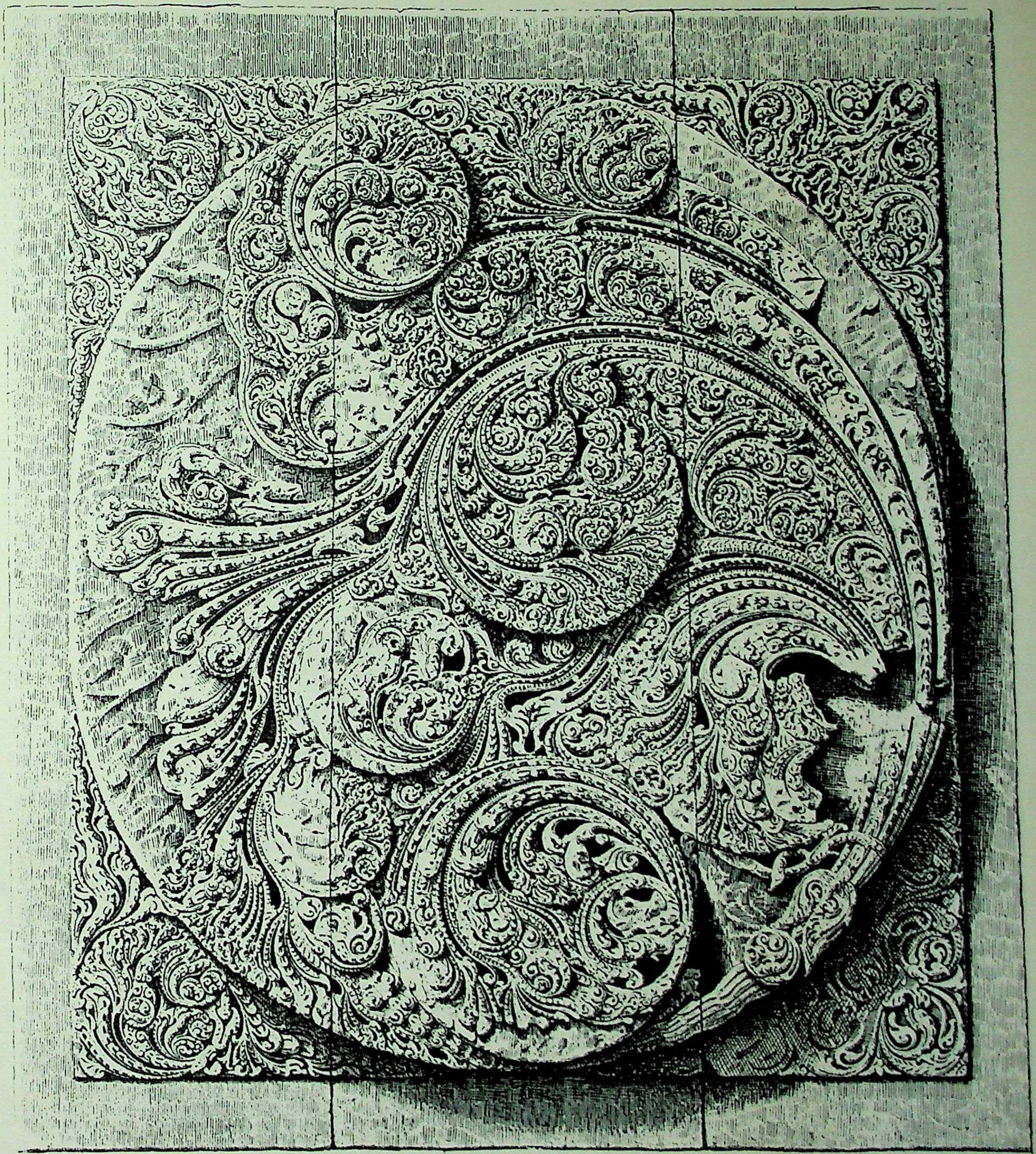
A CEILING PANEL FROM ANHILWÂDA PÂTAṆ, NORTH GUJARÂT.

ANHILWÂDA PÂTAN was, under the Chalukyan Kings of Gujarât, from the beginning of the eleventh century till the thirteenth, one of the most splendid cities of India, whose fine temples and other buildings were destroyed in the fourteenth century and subsequently, to provide materials for the building of Dholkâ, Ahmadâbâd, etc. The scale of the drawing is 1-10th of the original, which measures 7 feet 6 inches square. It must have come from one of the old temples, and may belong to the eleventh century. It is in three slabs, and is a marvel of boldly-executed free tracery, almost unequalled in India. Much of the work is undercut, and though injured in parts, is still in remarkable preservation, owing probably to its containing no figure device of any kind, but consisting entirely of floral tracery.

TECHNICAL ART SERIES-1887.

ARCHÆOLOGICAL SURVEY OF WESTERN INDIA.

PLATE V.



Survey of India Offices, Calcutta, August 1887

CEILING PANEL

FROM ANHILVAD PATTAN, NORTH GUJARAT

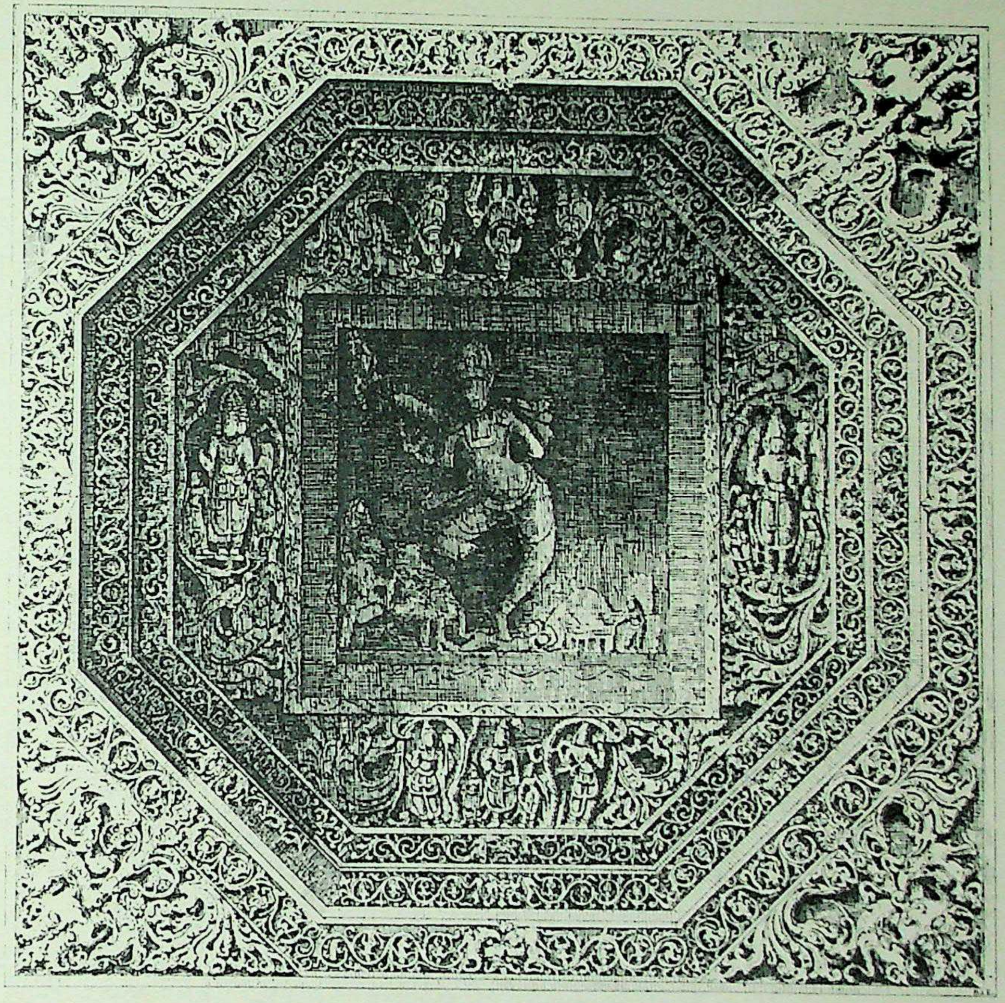
Scale One-Tenth.

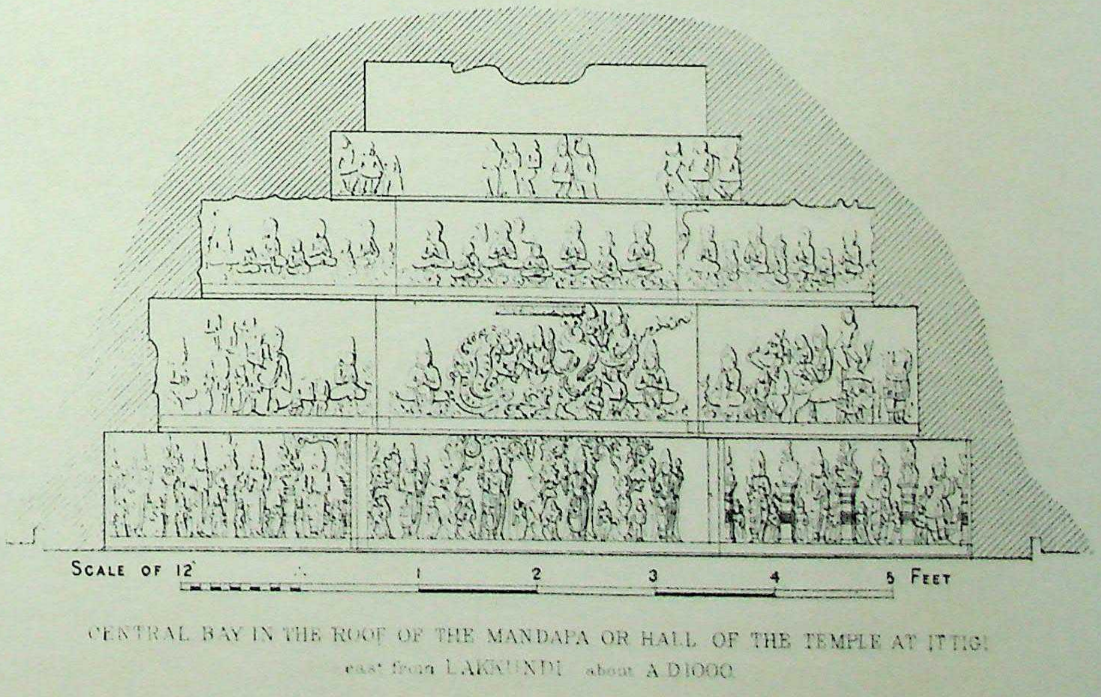
PLATE VI.

CENTRAL AREA IN THE ROOF OF THE MANDAPA, OR HALL OF THE TEMPLE AT ITTAGI.

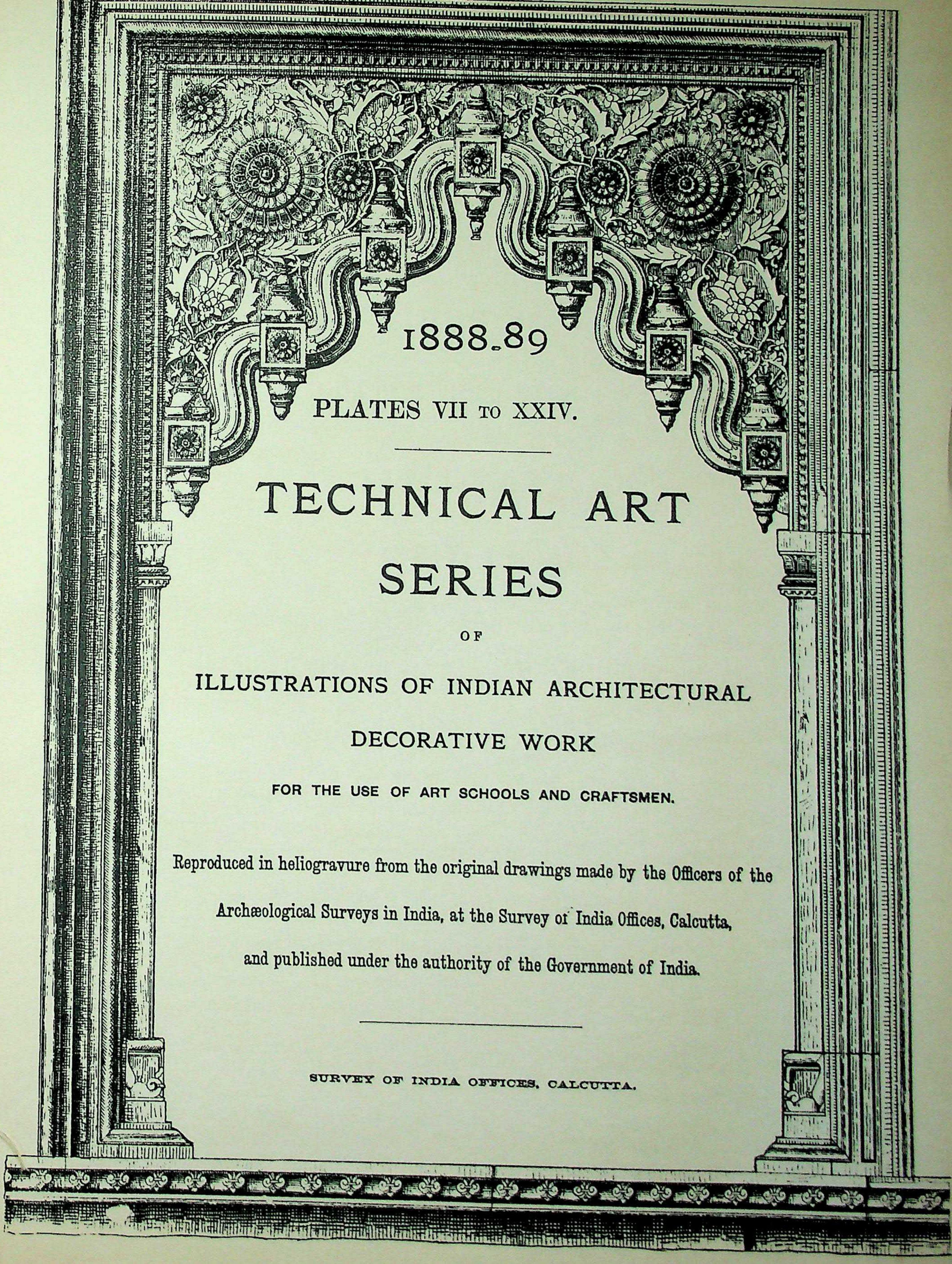
ITTAGI is a village near Kokkanur, in the Haidarâbâd territory, to the east of Lakkundi, and has a very fairly well preserved Chalukyan temple of the early part of the eleventh century,—indeed one of the best examples left. Many of the details of this temple are enriched with elaborate carving well deserving publication.

The Plate represents the central area of the roof of the pillared *mandapa*, 8 feet 4 inches square, to a scale of 1-15th of the original, or 8-10ths of an inch to a foot. As the section shows, this roof is deeply recessed, and rises as a sort of pyramidal dome of eight sides, and terminated, at 4 feet above the level of the spandrils from which the octagon takes its rise, in a slab 2 feet 9 inches square, which is sculptured with a figure of Siva as Nateśa. The spandrils, by which the square area of this bay of the roof is converted into the first octagonal tier above it, are carved with *Kirttimukh* faces and tracery, largely under-cut and in almost entire relief and the rich dark shadows thus produced set off, as a background, the beautiful scrolls of arabesque which flow in rich profusion from the mouths of the *Kirttimukhs*. The lower edges of each of the three tiers of octagons above this, which contract the area, are carved with belts of variegated scroll carving, each about a foot above the other. The inner faces of these tiers are filled with sculptures of mythological figures,—the middle facia representing the eight *Dikpâlas*. The octagon is again reduced to a quadrangle, with four side borders filled with figures of gods among tracery. The lower facia of this square panel, as seen in the section, is carved with musicians beating drums, etc.




SCALE OF 12
1
2
3
4
5 FEET

CENTRAL BAY IN THE ROOF OF THE MANDAPA OR HALL OF THE TEMPLE AT ITTIGI
east from LAKKUNDI about A.D.1000.



1888-89

PLATES VII TO XXIV.

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SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

VII.—Tympanum over the Recesses on each side of the Principal Mihrâb in the Atala Masjid at Jaunpur.

VIII.—Panel from one of the smaller Propylons of the Atala Masjid at Jaunpur.

IX & X.—Tomb of 'Umar Ibn Ahmad Al-Kâzarûni at Kambhay.

XI.—Mihrâb in the Jâmi Masjid at Bharoch.

XII.—Soffit of the Central Entrance of the Atala Masjid at Jaunpur.

XIII & XIV.—Panels on the Front Wall of the Jâmi Masjid at Ahmadâbâd.

XV.—Bay of a Ceiling from Hilâl Khân Qâzi's Masjid at Dholkâ.

XVI.—Door to the Court of Hilâl Khân Qâzi's Masjid at Dholkâ.

XVII.—Central Mihrâb of the Jâmi Masjid at Dholkâ.

XVIII.—One of the Marble Tombs of the Queens of Ahmad Shâh at Ahmadâbâd.

XIX.—Hindu Entrance to the Courtyard of the Tânka Masjid at Dholkâ.

XX & XXI.—Mihrâbs from the Jâmi Masjid at Jaunpur.

XXII, XXIII, & XXIV.—Roof Panels from the Jâmi Masjid at Jaunpur.

PLATE VII.

TYMPANUM OVER THE RECESSES ON EACH SIDE OF THE PRINCIPAL MIHRÂB IN THE ATALA MASJID AT JAUNPUR.

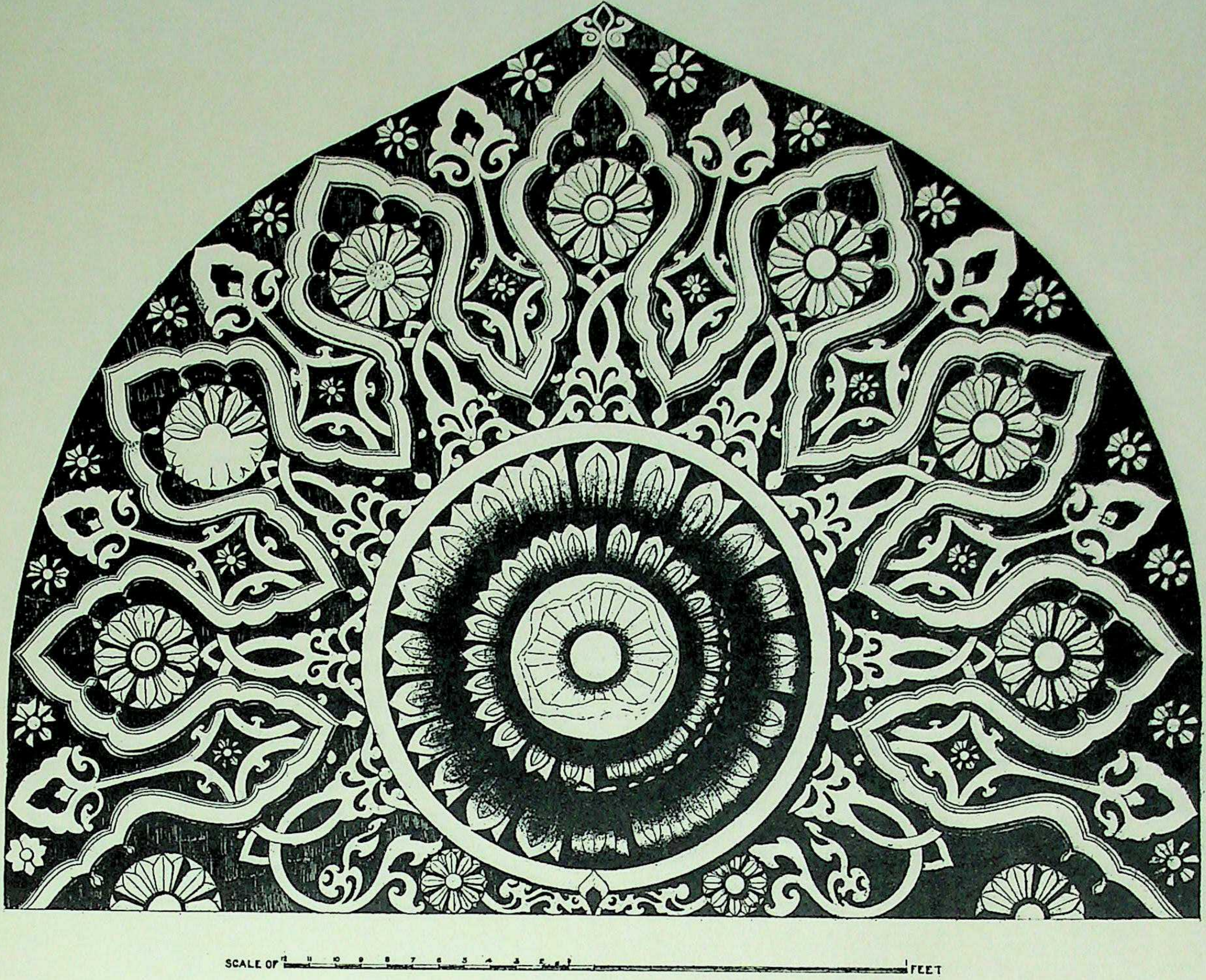
THE Atala Masjid at Jaunpur was built by Ibrahim Shâh Sharqi, and finished in 1408 A.D. The style of architecture employed by the Sharqi Kings has characteristics of its own,—various features in it reminding us of Persian influences.

The drawing on this Plate is to a scale of 1-5th of the original. It represents the tympanum of a niche by the side of the principal Mihrâb in the mosque, and presents a good specimen of the carved decorative work of this style, filling up the area in a manner both pleasing and effective. In the centre is a large *patera* in bold relief and having three concentric circles of leaves, the field around being embellished by raised carving of radiating arabesque design, formed chiefly of moulded trefoil zig-zags, filled in with rosettes on a background of intricate tracery studded with stars.

This Plate has been published in the Archæological Survey Report volume on the "Sharqi Architecture of Jaunpur," in which volume full details of the Sharqi style will be found. Other examples of decorative work from the same source will be given in the next and in some of the subsequent Plates.

JAUNPUR ATALA MASJID

PLATE VII.
PLATE XIII


SCALE OF 12 11 10 9 8 7 6 5 4 3 2 1 0 1 FEET

TYMPANUM OF THE RECESSES ON EACH SIDE THE PRINCIPAL MIHRAB.

PLATE VIII.

PANEL FROM ONE OF THE SMALLER PROPYLONS OF THE ATALA MASJID AT JAUNPUR.

THIS is another sample of the carved panels at Jaunpur, being taken from the façade of one of the smaller propylons that screen off the domes on the wings from view from the Court. It is drawn to a scale of 1-10th of the original,—the panel measuring 5 feet 6 inches square. It is placed just above the string-course over one of the small side entrances of the propylon. The border is considerably damaged, but bore a very pretty floral pattern. The field, in a circle, contains two squares interlaced and their sides so broken by lines connecting the third points all round as to form eight similar trapeziums, the centre being filled by a rosette.

TECHNICAL ART SERIES - 1889.

JAUNPUR ATALA MASJID.

PLATE VIII.
PLATE XVII.

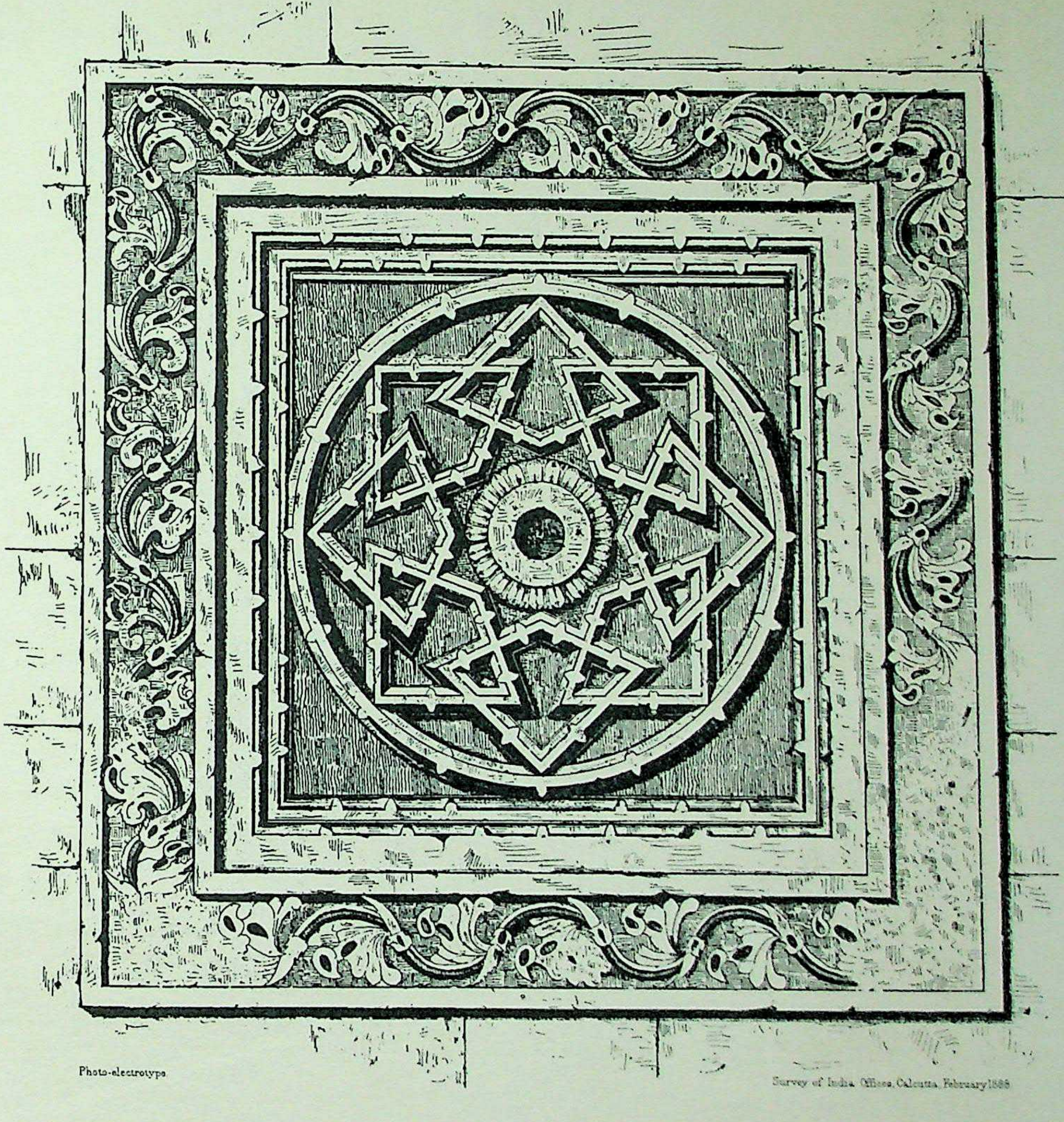
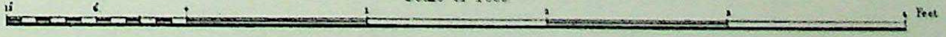


Photo-electrotype.

Survey of India Offices, Calcutta, February 1888

Scale of Feet



PANEL ON THE SOUTHERN SMALLER PROPYLON OF THE MOSQUE.

Edm. W. Smith del.

PLATES IX & X.

TOMB OF 'UMAR IBN AHMAD AL-KÂZARÛNI AT KAMBHAY.

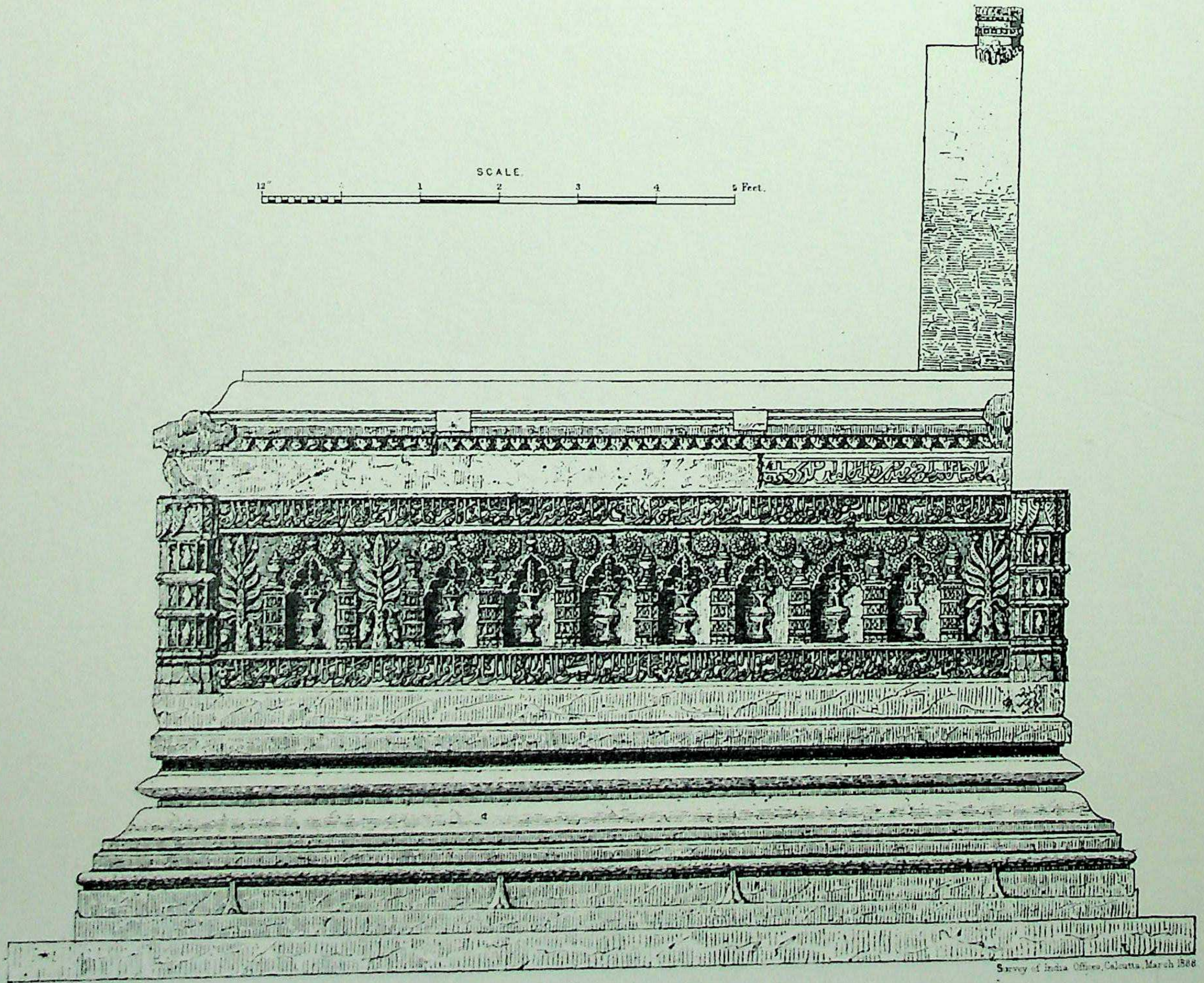
THESE two Plates present the elevations of the side and two ends of a white marble tomb at Kambhay, constructed in A.D. 1333, but unfortunately now much ruined. They are drawn to a scale of 1-20th, or 6-10ths of an inch to a foot. This tomb has been of exceeding beauty, but was greatly injured by the fall upon it of the dome which covered the great hall in which it stands. The head (on Plate X) has escaped with little injury, and on it may be studied the ingenious way in which the inscriptions have been made to subserve the purposes of ornament. In the centre of the upper part of this slab we have the larger Kalimah,—"I bear witness that there is no god but Allah, and that Muhammad is his worshipper and messenger," and, by lengthening the stems of the *Alefs* and *Lams*, this is made to fill up the arched space. Round the inner margin of this is engraved verse 256 of the second *Sûrah* of the Qorân; and below, on one side, the concluding sentence of verse 151 of *Sûrah* II, and on the other, part of verse 52 of *Sûrah* XXXVI. The outer margin all round is filled with the first twelve and a half verses of *Sûrah* XXXVI. In the lower half of the stone the inner margins contain verses 16 and 17 of the third *Sûrah*, and the upper portion of the centre bears verses 163—165 of the same chapter. Below this is the Epitaph of 'Umar ibn Ahmad Al-Kâzarûni, who bore the title of Zaur-ul-Malik, and died 9th Safar 734 A.H.

The foot of the tomb is carved with trees, and the sides, with recesses containing lamps and conventionalised trees, with verses of the Qorân above and below. The base on which it stands is elegantly moulded. This belongs to the same period of the style as the Mihrâb on Plate II,—indeed it dates from the same year.

TECHNICAL ART SERIES-1888.
GOV^T ARCHÆOLOGICAL SURVEY OF WESTERN INDIA.

PLATE IX.

CAMBAY TOMB OF 'UMAR IBN AHMAD-AL KÂZARÛNÎ A.D.1333



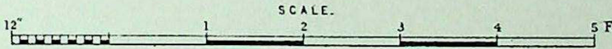
Survey of India Offices, Calcutta, March 1888

Photo-electrotype

3 SIDE ELEVATION

J. Burgess, Director

CAMBAY TOMB OF 'UMAR IBN AHMAD-AL KASARUNI A.D 1333



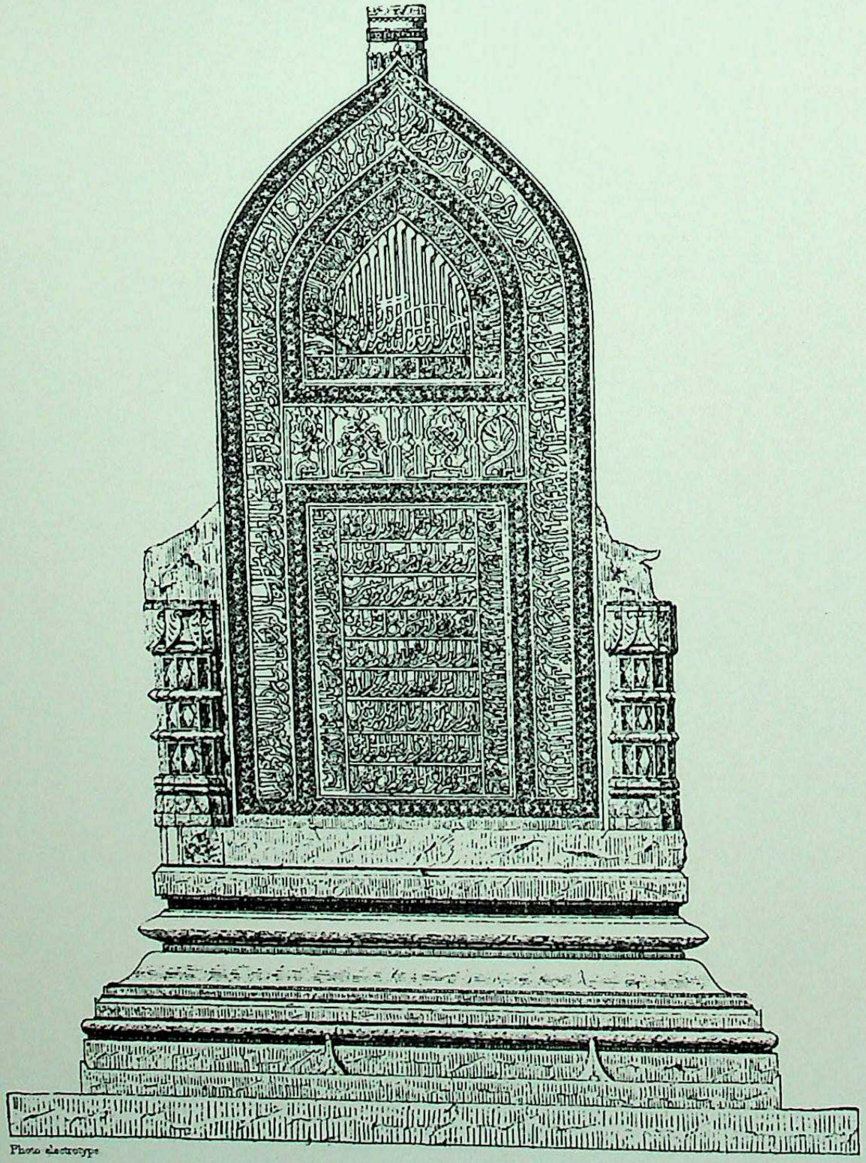
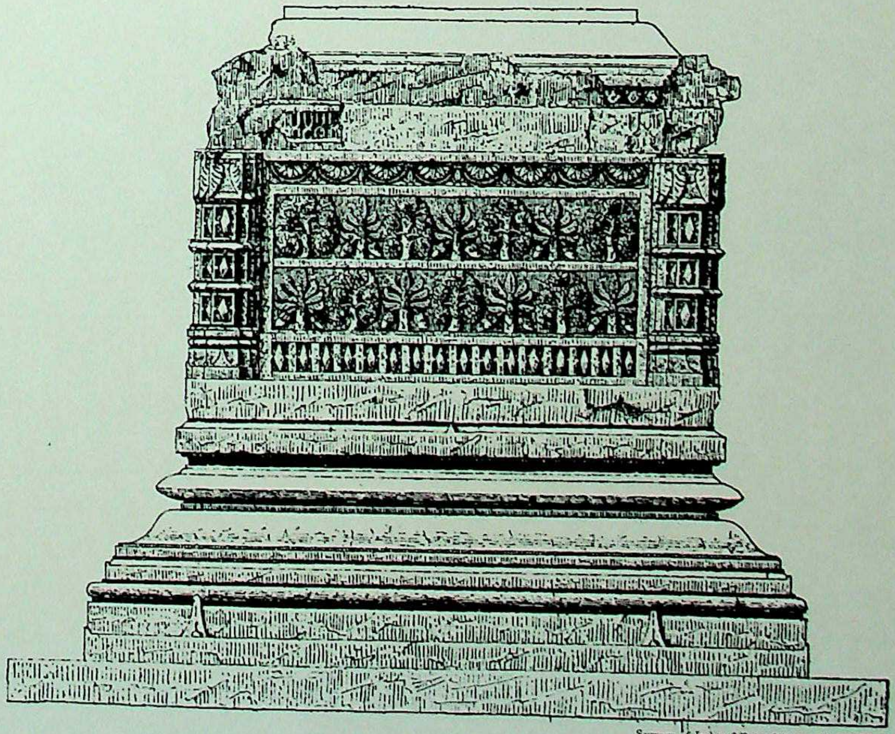


Photo electrotype

1 HEAD


2 END

J. Burgess, direxit.

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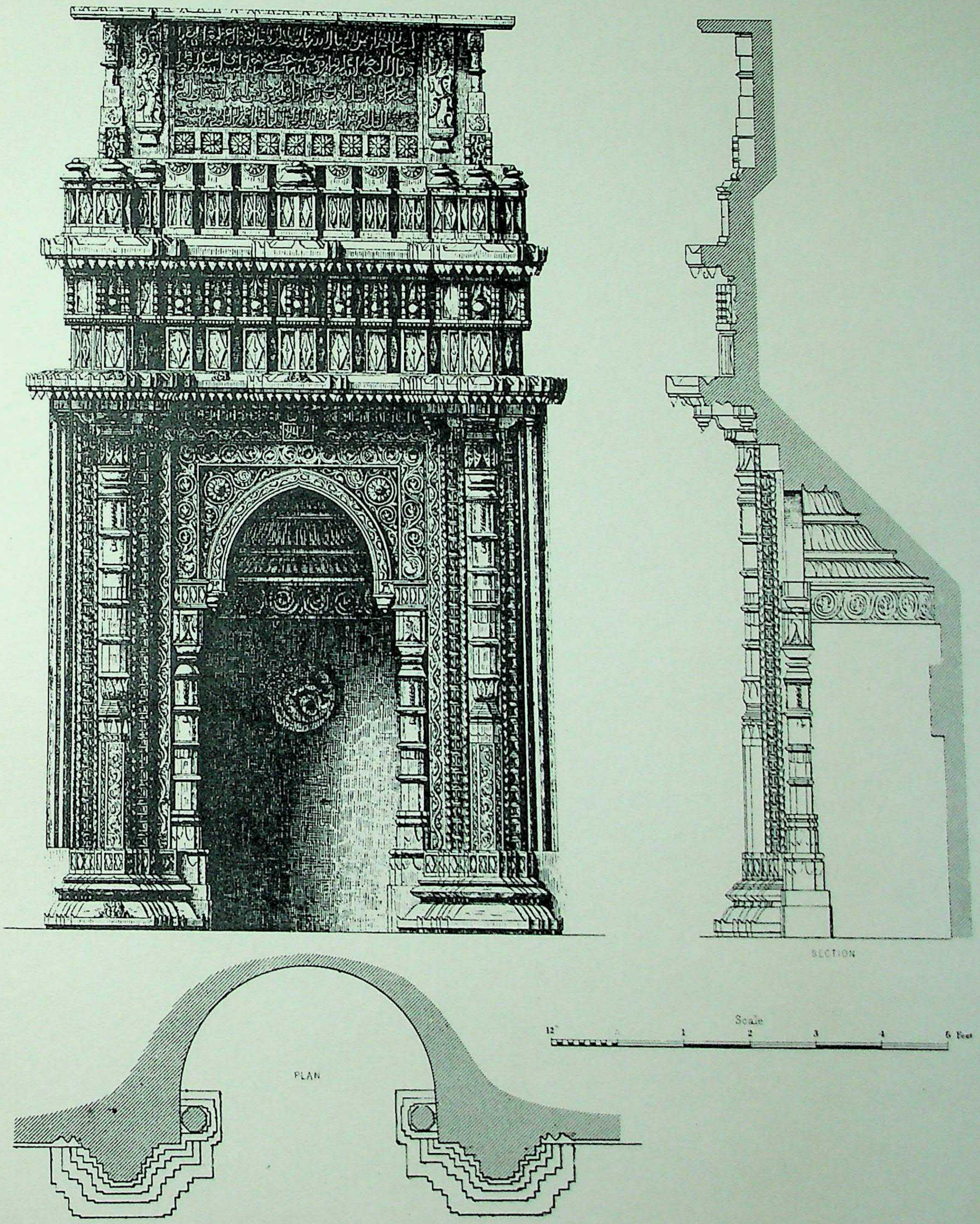
PLATE XI.

MIHRÂB IN THE JÂMI MASJID AT BHAROCH.

LIKE Plate II, this also represents a *Mihrâb* with plan and section drawn to a scale of 1-20th, or 6-10ths of an inch to a foot. This one varies in details from the other and has a fine triple frieze above, in the uppermost section of which is an inscription containing sentences from the Qorân, but no date. The whole is very richly carved, and strongly manifests the influence of Hindu taste on Muhammadan architecture. The boss on the back of the interior, consisting of a boldly-cut floral volute, is distinctly Hindu in conception and belongs to Gujarât art.

Govt Archæological Survey of Western India.

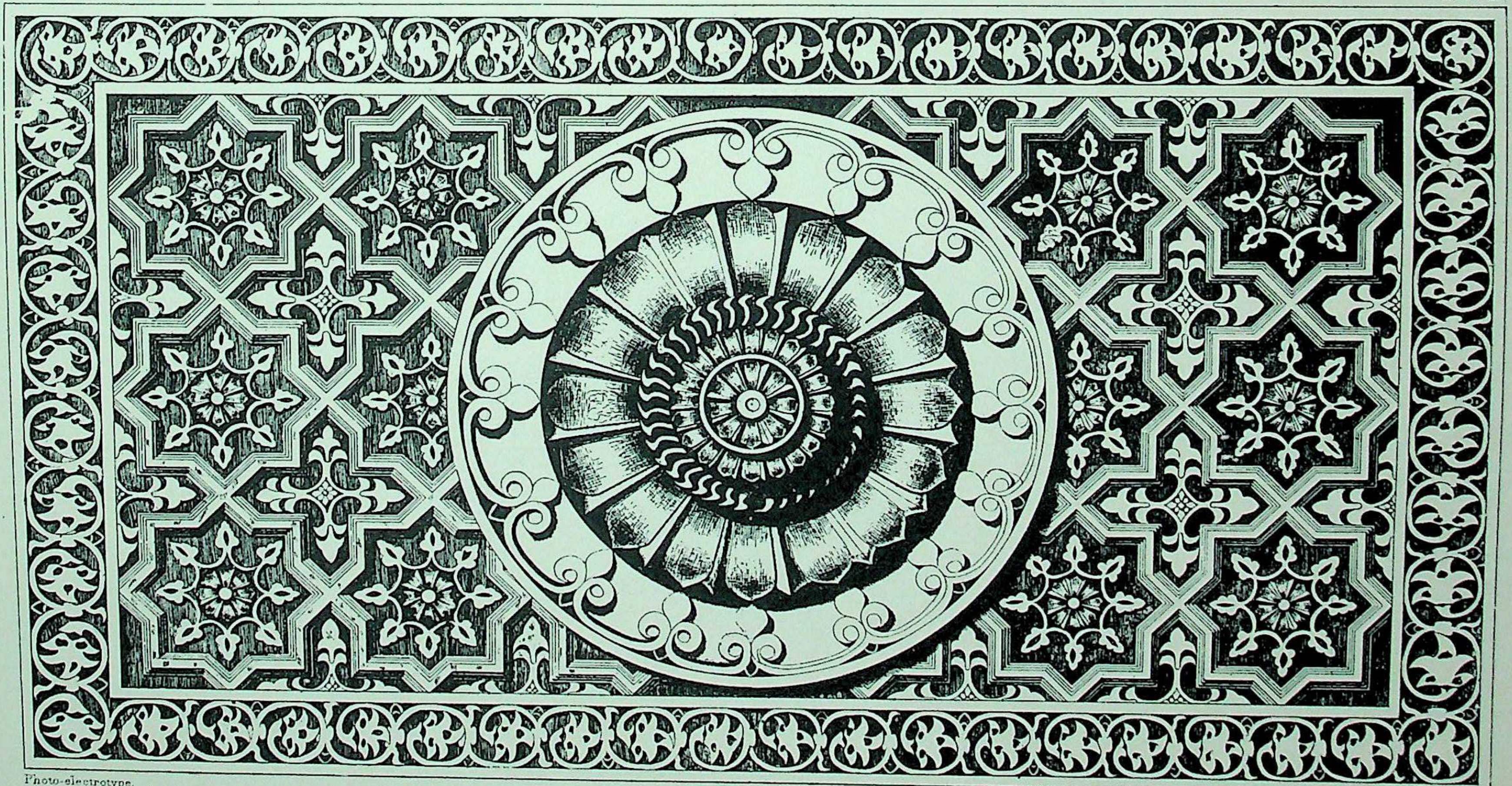
BHAROCH: CENTRAL MIHRAB IN THE JAMI MOSQUE


SECTION
Scale
12"
6
1
2
3
4
5 Feet
PLAN

J. Burgess direxit.

JAUNPUR: ATALA MUSJID.

PLATE XI.



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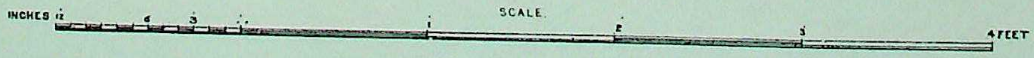
Survey of India Offices, Calcutta, January 1888.


INCHES 12
6
3
1
SCALE.
2
3
4 FEET

CARVED ROOF OF CENTRAL ENTRANCE TO THE GREAT DOME

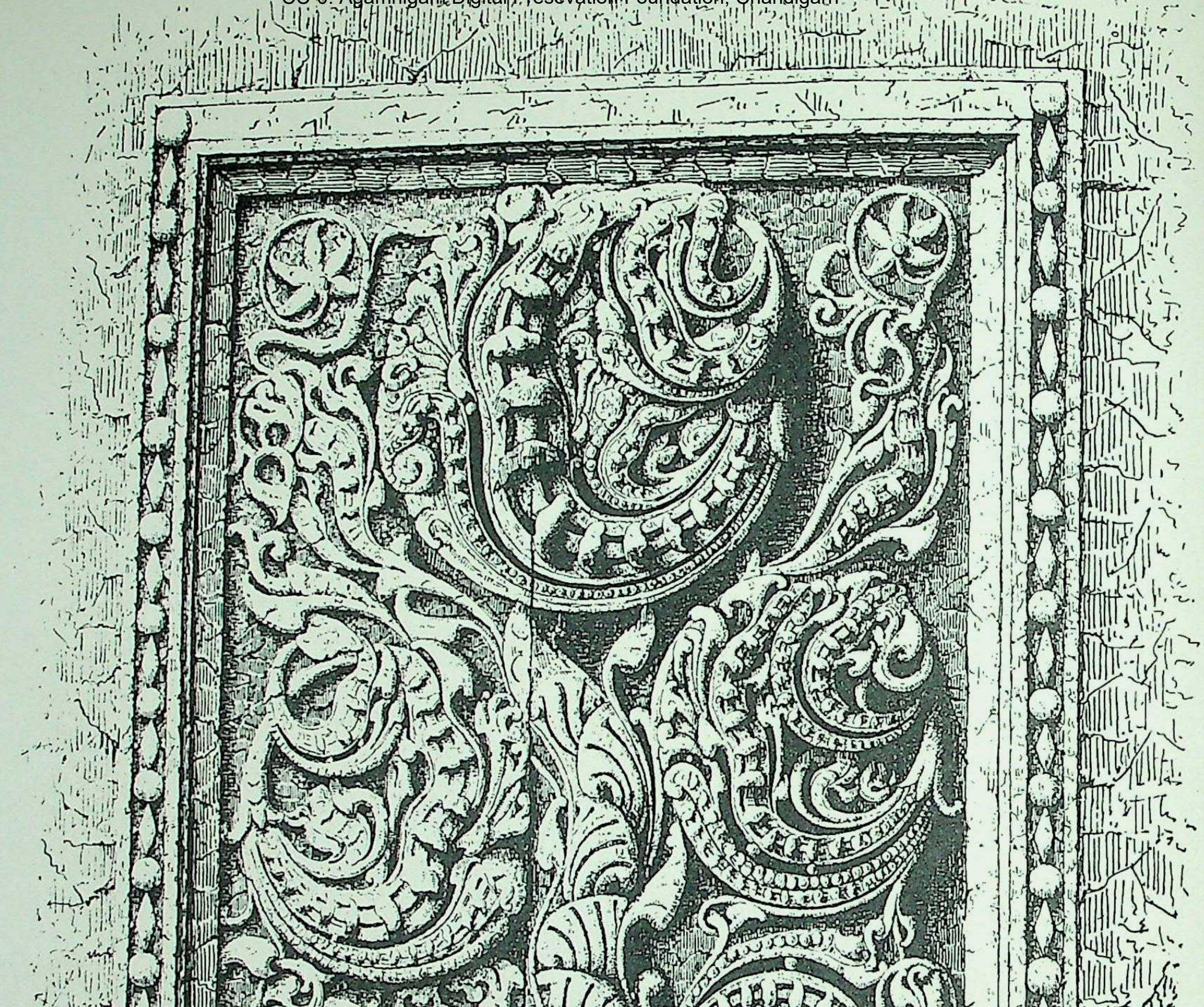
PLATES XIII & XIV.

PANELS ON THE FRONT WALL OF THE JÂMI MASJID AT AHMADÂBÂD.

THESE two panels from the front wall of the Jâmi Masjid at Ahmadâbád are drawn to a scale of 1-5th of the originals. The mosque was built in A.D. 1423, and four of these panels serve to ornament the walls between the open wings and the centre of the building. They are cut in high relief, are massive, and attract the eye. This style of work has also been illustrated in Plate V, and an instance of its application was noted in the back of the Bharoch *Mihrâb* (Plate XI). In all the older examples of this sort, the foliage is highly conventionalised and stands out boldly in projecting scrolls of different depths, cut with great freedom and sweep of outline. Such an arrangement of scroll-work is specially Hindu, and was used by them from a very early date, as may be seen in the carved heavy masses in high relief on the old temples of Virupâksha at Pattadkal in Dharwâr and Kailâsa at Elura,—both of the 8th century A.D.

These designs might be reproduced very effectively in *repoussé* metal-work and otherwise.

AHMEDABAD JAMA MOSQUE.



PANEL IN FRONT WALL

AHMEDABAD JAMA MOSQUE

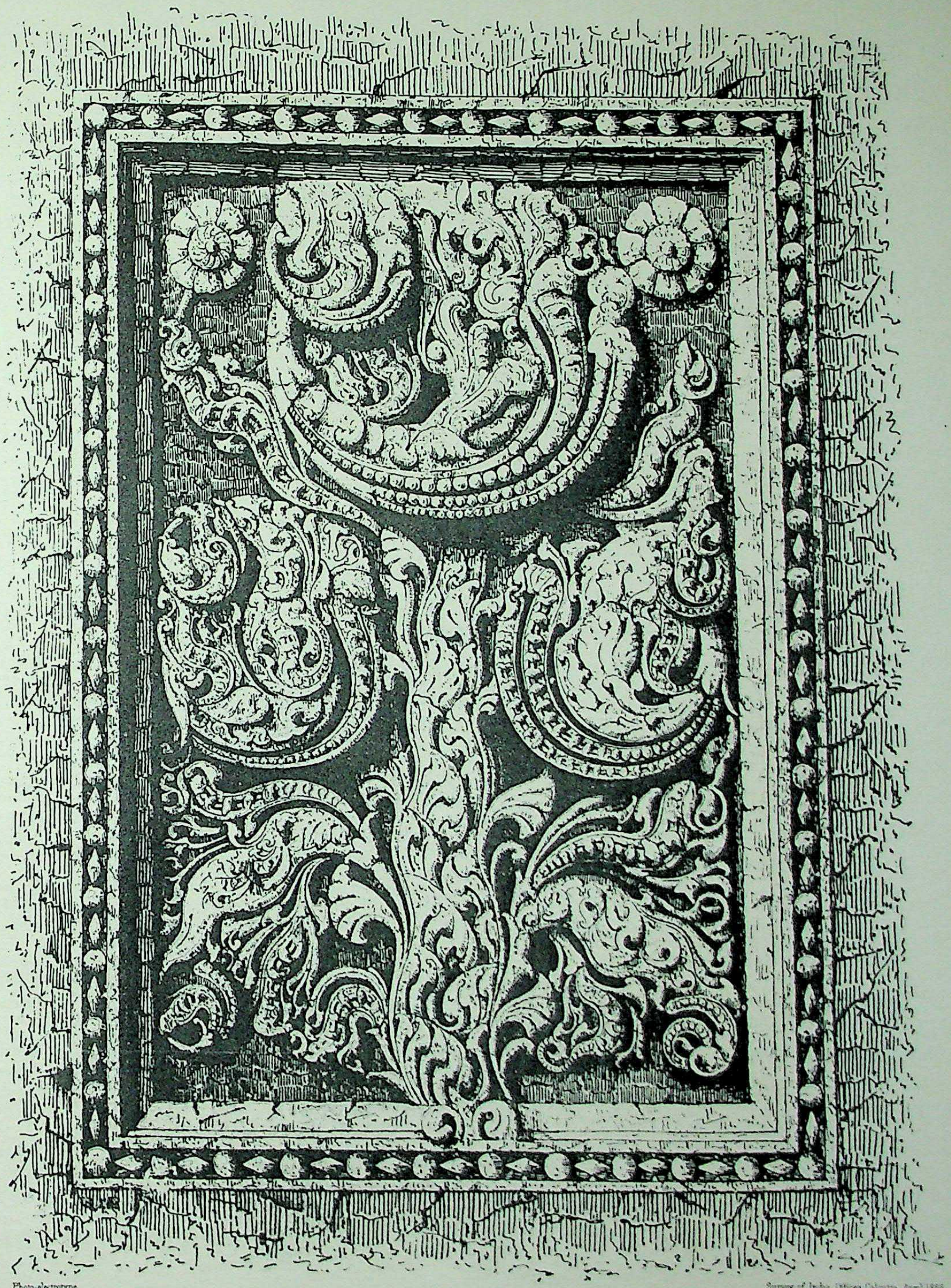


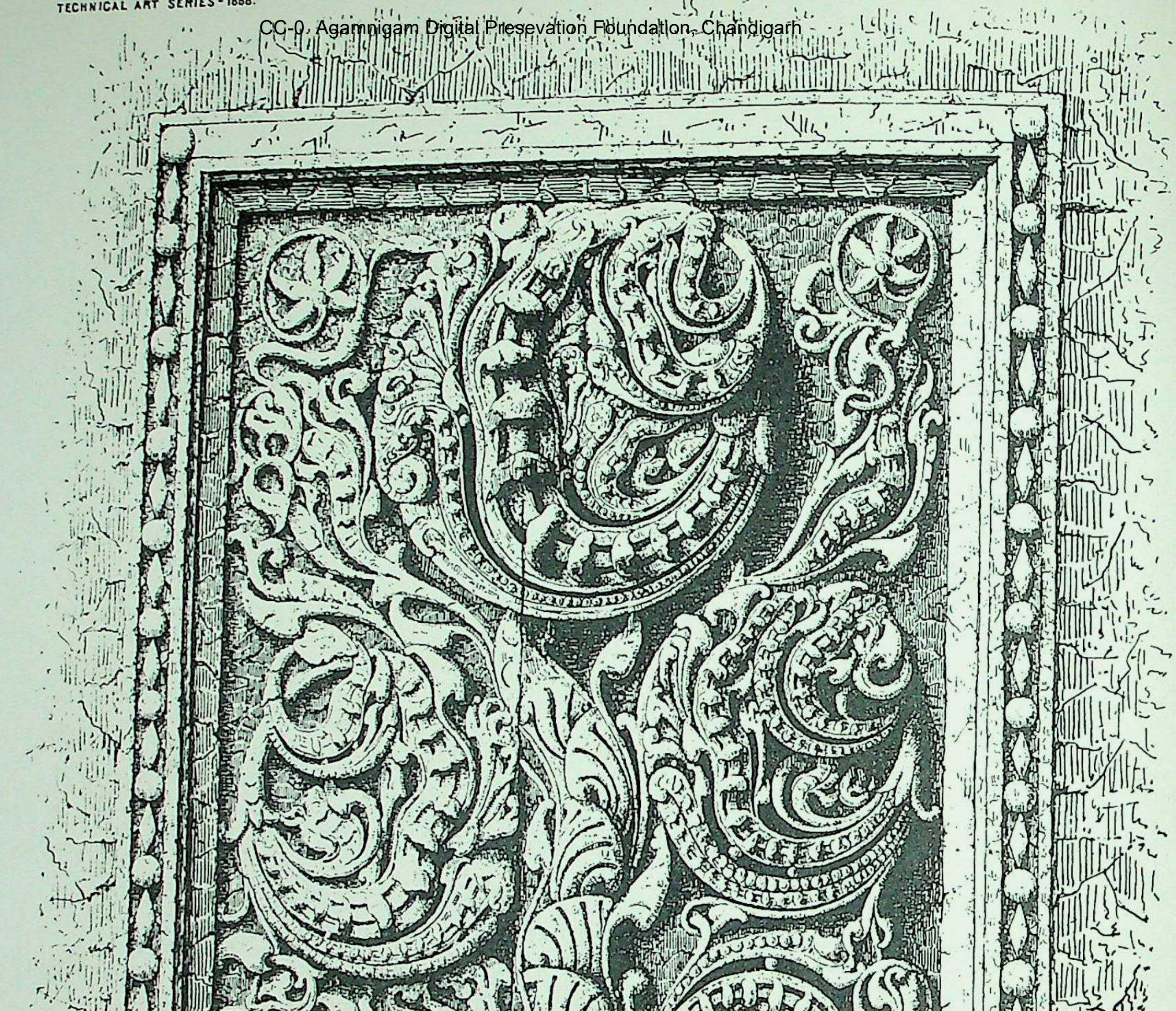
Photo-electrotype

Survey of India Offices Calcutta, April 1888

PANEL IN FRONT WALL

12"
6"
0
1
2 FEET

AHMEDABAD JAMA MOSQUE



PANEL IN FRONT WALL

AHMEDABAD JAMA MOSQUE.

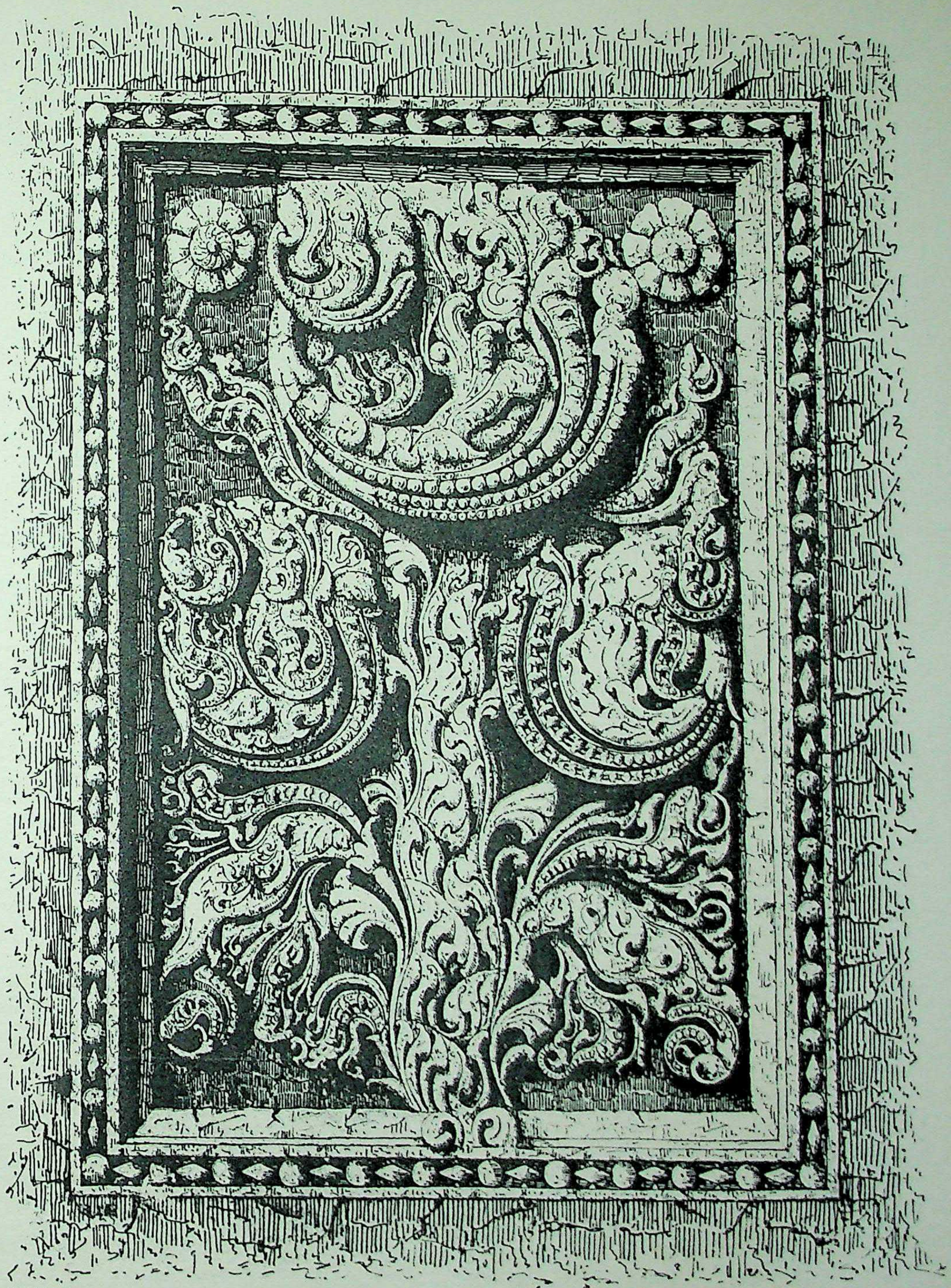


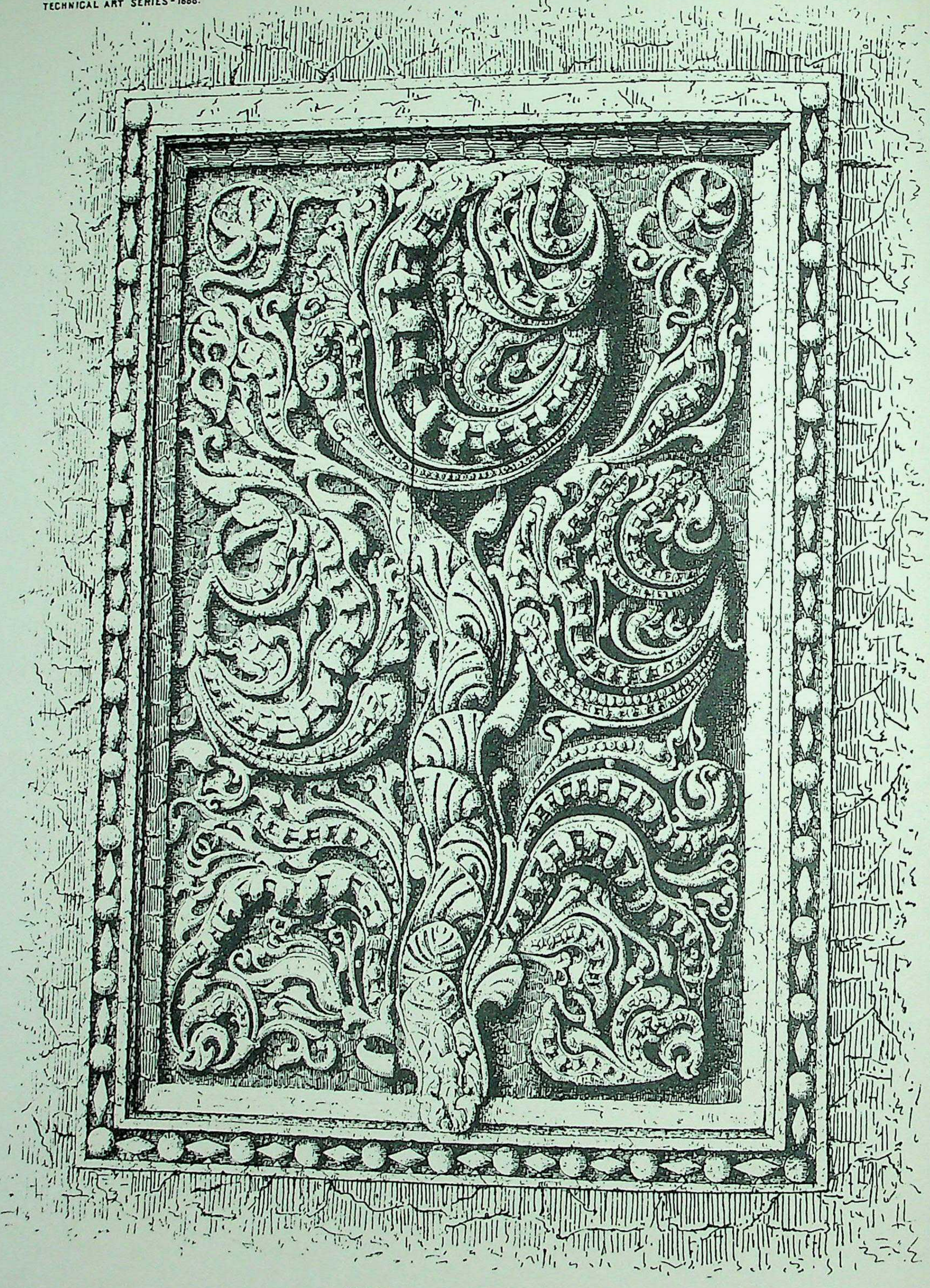
Photo-electrotype.

Survey of India Offices, Calcutta, April 1888.

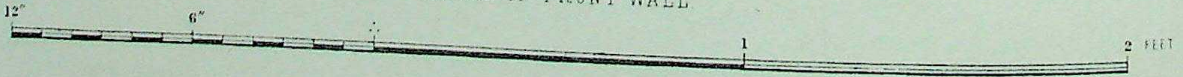
PANEL IN FRONT WALL

12"
6"
0
1
2 FEET

AHMEDABAD JAMA MASJID



PANEL IN FRONT WALL



AHMEDABAD JAMA MOSQUE

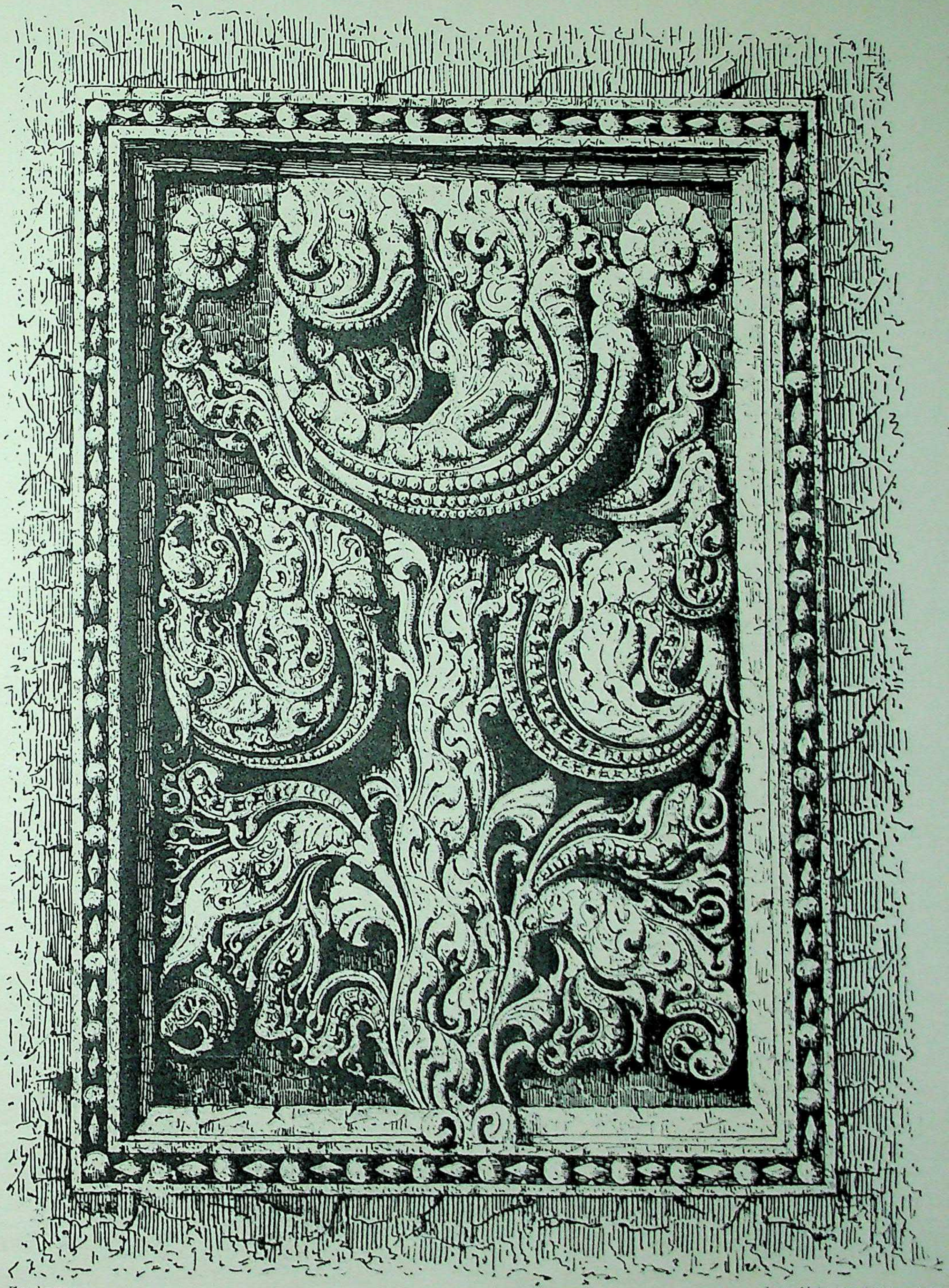


Photo-electrotype

Survey of India Offices, Calcutta, April 1888

PANEL IN FRONT WALL

12"
6"
0
1
2 FEET

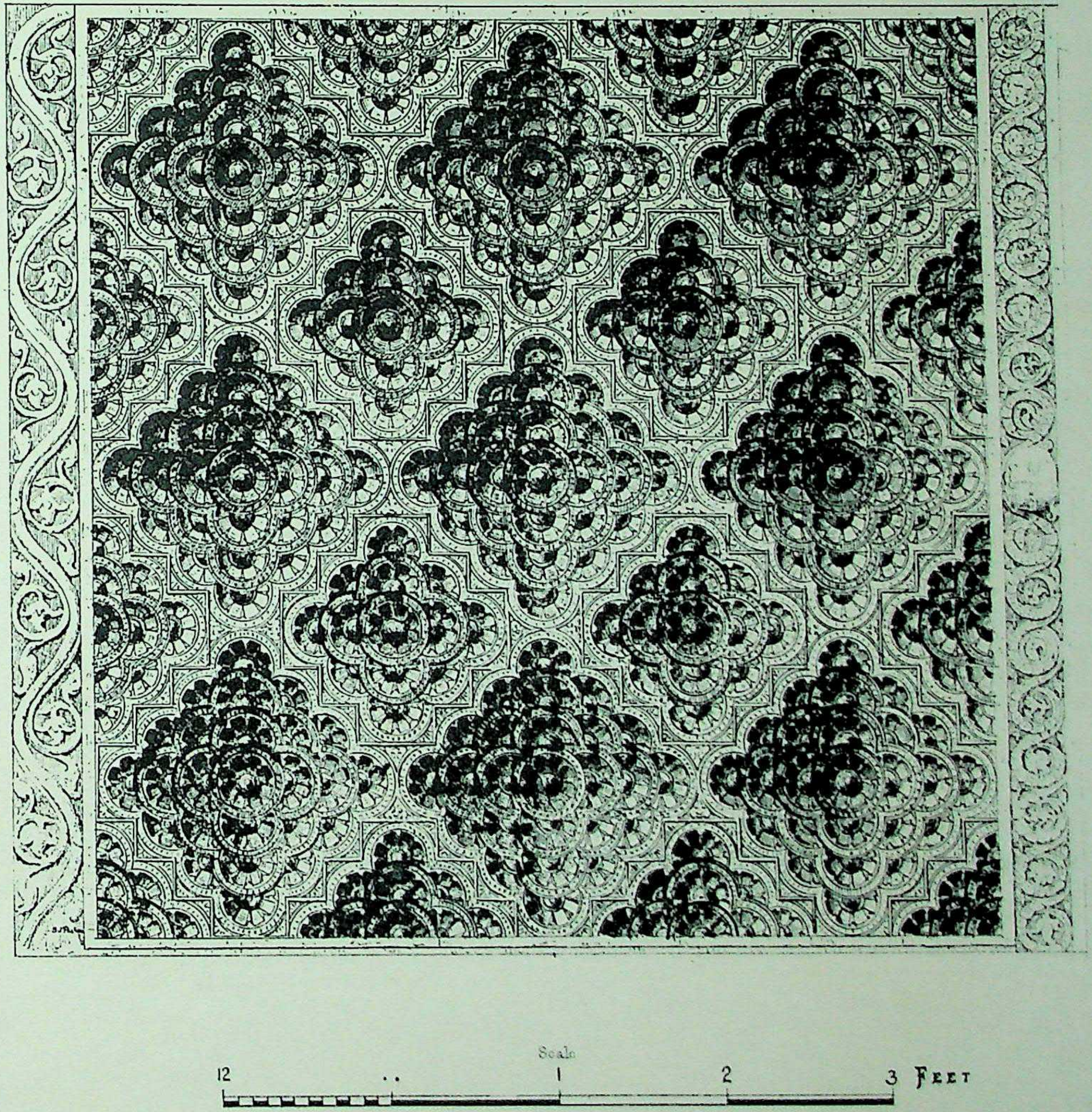
PLATE XV.

BAY OF A CEILING FROM HILÂL KHÂN QÂZI'S MASJID AT DHOLKÂ.

PLATE II represents the Mihrâb from the Mosque of Bilâl, or Hilâl Khân at Dholkâ; and this drawing represents one of the bays in the roof of the same building. In the older Hindu and Jaina temples in Gujarât, the most beautifully carved roofs were common. Every variety of geometrical pattern seems to have been worked out, and the ingenuity and intricacy of many of them is amazing. On the conquest of the country by the Muhammadans, these roofs and their supporting pillars were pillaged sometimes *en bloc*, to be used in the mosques of the conquerors. Religious edifices were always, with them, state property; and after the destruction of the images, the buildings were regarded as belonging to Government quite as much as the revenues of the conquered province The beautiful carved roofs of the old Jâmi Masjid at Bharoch were thus pillaged from a fine temple, possibly a great Jaina one, built in the first half of the thirteenth century by Vastupâla.

The drawings on this Plate is to a scale of 1-10th. Like those at Bharoch, this Dholkâ roof is divided into square and oblong bays, but they often rise in the centre as domes or vaults. Some of the smaller ones, however, like the one here given, are flat; and being all carved from the solid stone, they must have cost much time and skilled labour to preserve the true geometric outline while sinking the small cusped compartments. The bay to be roofed by this slab being longer than broad, while the pattern requires a square area, the workman has met the difficulty by adding pretty borders of different patterns at each end.

DHOLKA: BALAL KHÂN QÂZI'S MOSQUE.


Scale
12
1
2
3 Feet

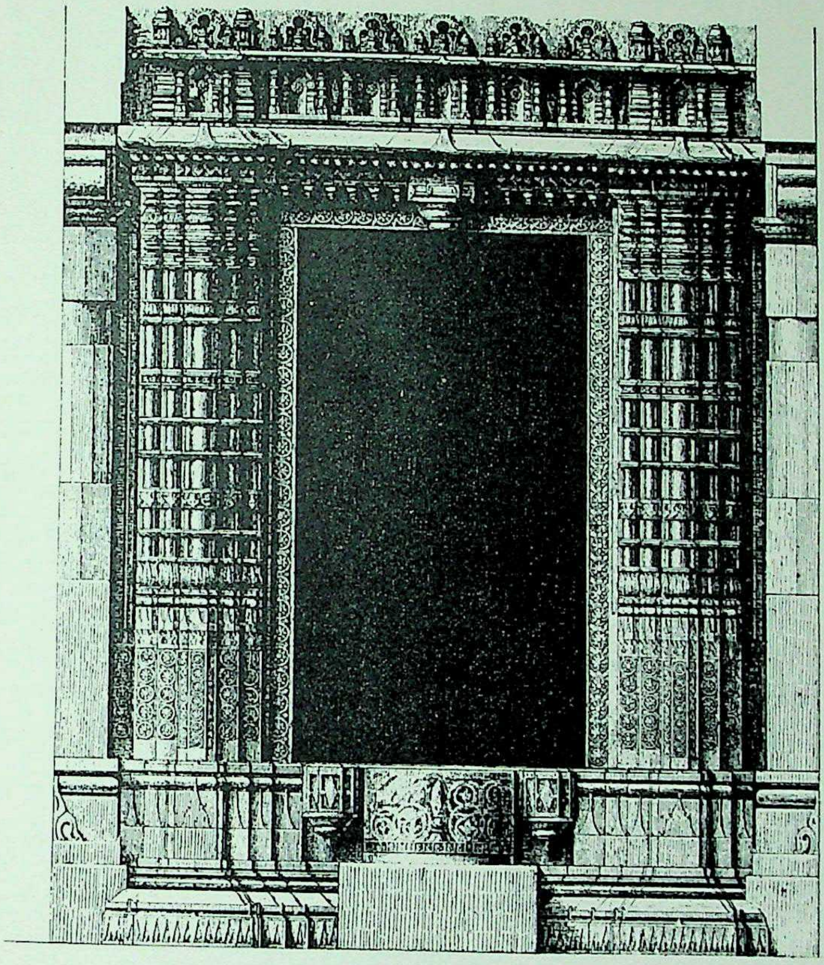
CEILING PANEL

PLATE XVI.

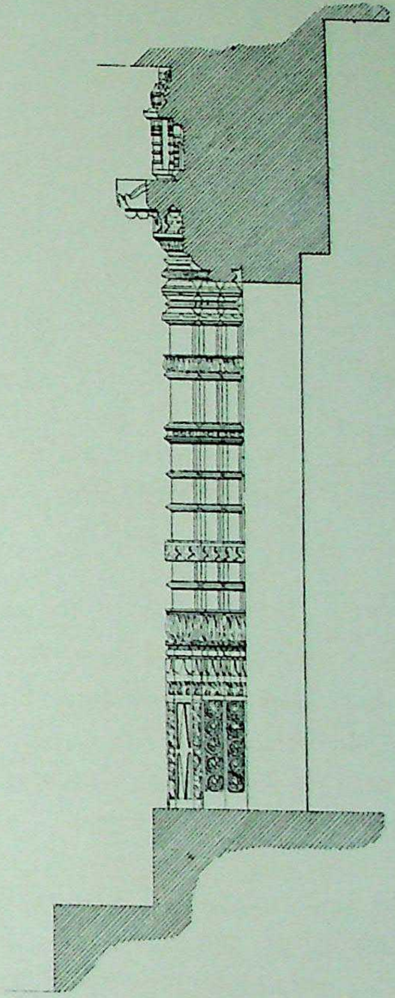
DOOR TO THE COURT OF HILÂL KHÂN QÂZI'S MASJID AT DHOLKÂ.

THIS Plate ought to be studied along with Plate XIX, for the latter is manifestly the type from which this design was derived, and while this is rich and elaborate in minute details, the older Hindu work is architecturally the better of the two. The lower part of the jambs is here much weaker in design than in the prototype, chiefly because the ornament is too small in conception for its position; the two steps, of a foot each, are much too high and detract from the proportion of its parts; evidently the architect hampered himself with the base moulding of the jambs, which he adjusted to those of the pillars and pilasters of the hall. The older door was better here. The working out of the five thin shafts on each jamb, so as to detach them except at the numerous fillets, shows what pains the workmen bestowed on their labours. The plan and section will show the projection of the principal parts. The scale is 1-20th, or 6-10ths of an inch to a foot.

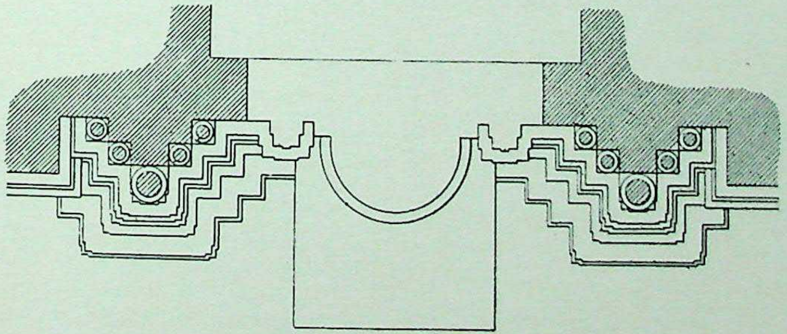
DHOLKÂ HILÂL KHÂN QÂZIS MOSQUE



1 ELEVATION



3 SECTION



2 PLAN

Survey of India Offices Calcutta, September 1888

Scale of 12"
1
2
3
4
5 Feet

DOORWAY LEADING INTO THE COURTYARD

PLATE XVII.

CENTRAL MIHRÂB OF THE JÂMI MASJID AT DHOLKÂ.

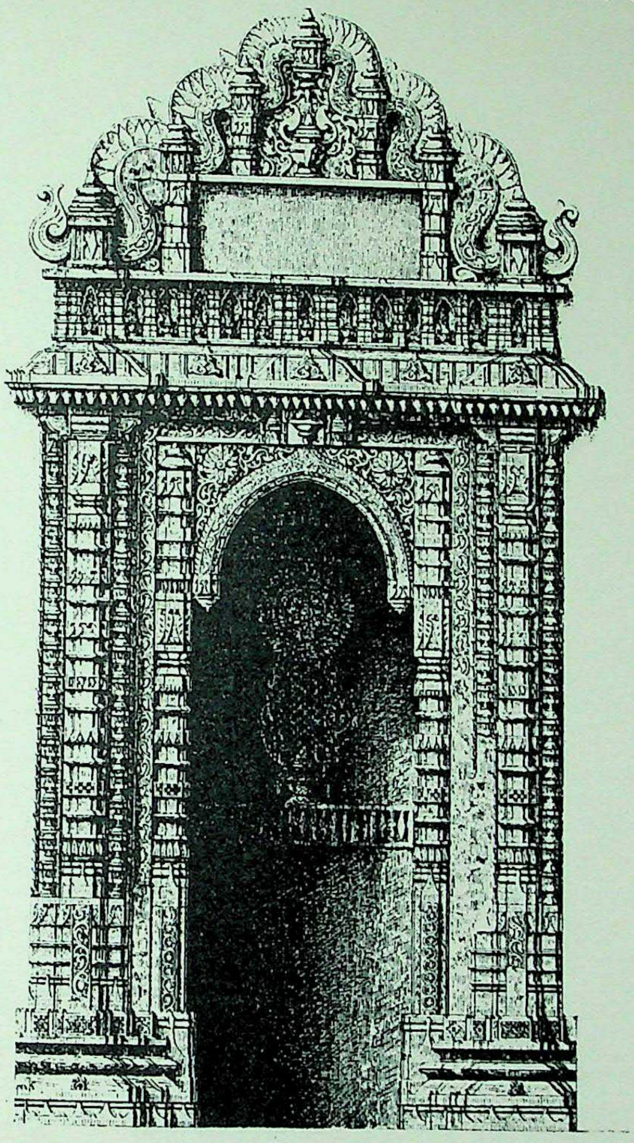
THIS Mihrâb, also from Dholkâ, is to the scale of 1-20th, and is nearly entire,—part only of the right side marble jamb having been injured and the inscription removed from the frieze. It dates from about the middle of the fourteenth century. In this example the plan is not semicircular but oblong; but it is roofed in the same way as the others, and on the back it has not merely the rosette common to the Guzarât mosques, but, dependent from it, the lamp which the Musalmân conquerors had brought with them from Upper India, supported here by an elaborate display of chains and foliage. The pediment in this case is a characteristic example of the style of these prevalent at Ahmadâbâd and elsewhere in Gujarât.

Worked in silver, with but few modifications, such a form would present a pretty case for a small time-piece.

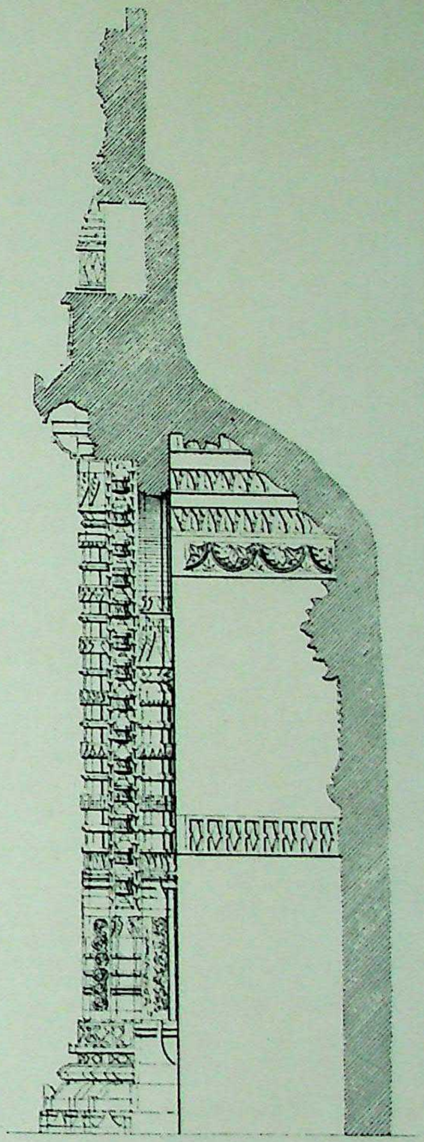
TECHNICAL ART SERIES-1889.

DHOLKÂ JÂMÎ MASJID

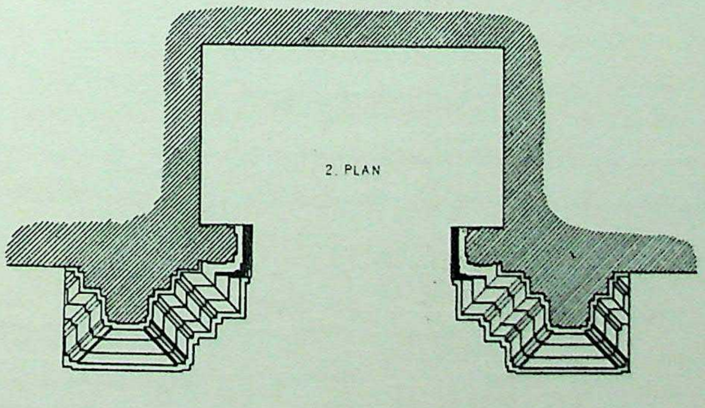
PLATE XVII.

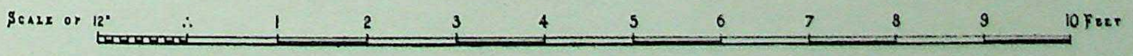


FRONT ELEVATION.



3 SECTION




SCALE OF 12"
∴
1
2
3
4
5
6
7
8
9
10 FEET

CENTRAL MIHRÂB

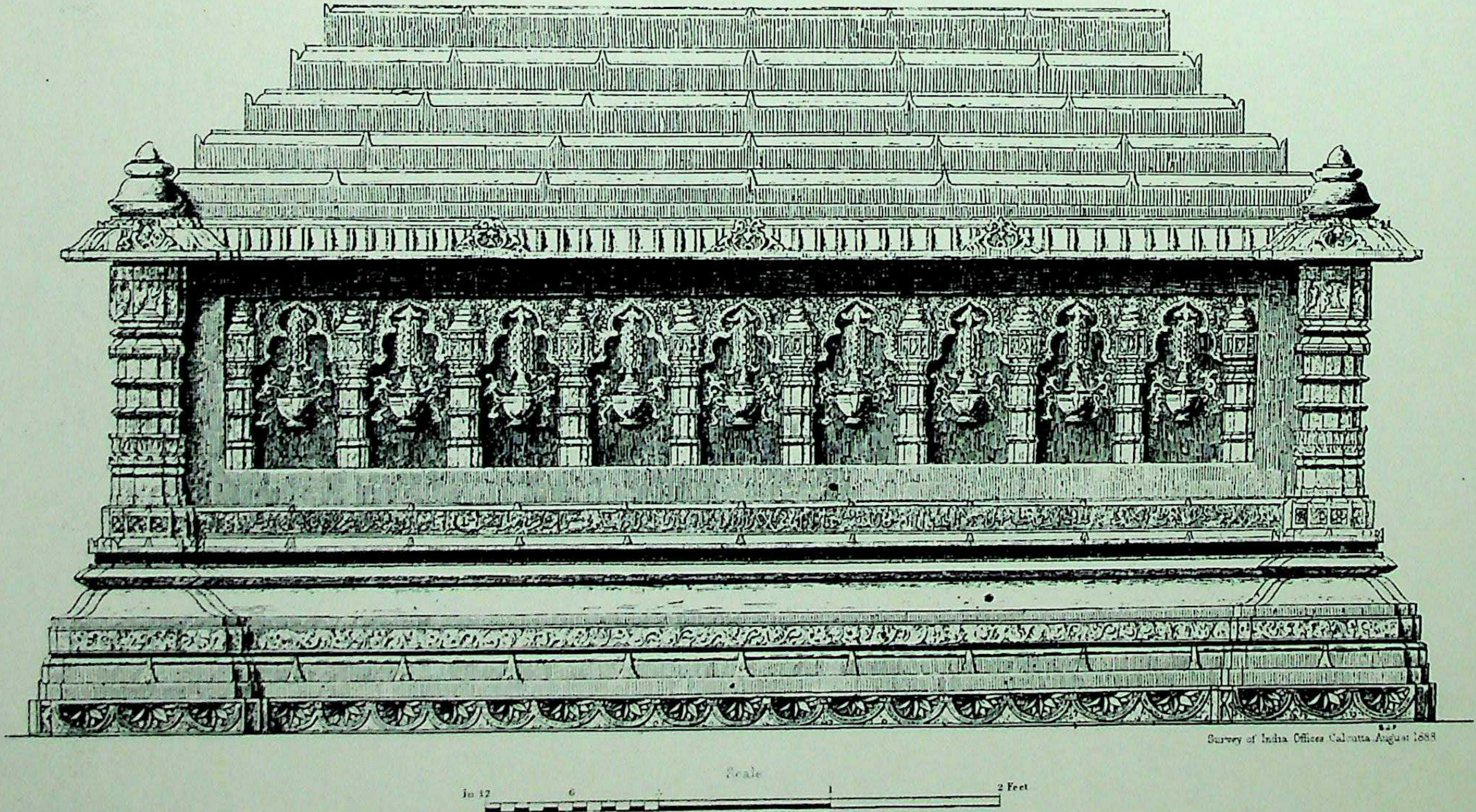
GOV^T ARCHÆOLOGICAL SURVEY OF WESTERN INDIA.

PLATE XVIII.

ONE OF THE MARBLE TOMBS OF THE QUEENS OF AHMAD SHÂH AT AHMADÂBÂD.

CLOSE to the Dargah of Ahmad Shâh, which adjoins the Jâmi Masjid at Ahmadâbâd, and entered by a lofty gateway, is a large square enclosure, surrounded by a trellised corridor, but covered by no dome, are the tombs of the inmates of Ahmad Shâh's *zanâna*. The Plate represents one of the two principal of these,—that of the Moghlâî Bîbî, of white marble. These tombs "are beautiful specimens of sepulchral art, appropriate to their object, and elegant both in form and detail."

AHMADÂBÂD.



Survey of India Offices Calcutta August 1888

ONE OF THE MARBLE TOMBS OF THE QUEENS OF AHMAD SHÂH

PLATE XIX.

HINDU ENTRANCE TO THE COURTYARD OF THE TÂNKA MASJID AT DHOLKÂ.

AS already mentioned, Plate XVI has to be studied along with this one, which, however, is drawn to the larger scale of 1-12th or 1 inch to a foot. This Hindu example has belonged to one of the temples erected in the twelfth or thirteenth century, under the Wâghelas, whose original residence seems to have been at Dholkâ,—which continued to be their capital also when they came to exercise regal power on the Chalukya or Solanki family becoming extinct. The remarks on Plate XVI may be consulted with reference to this. The Muhammadans having destroyed the human faces in the sculpture, seem to have considered that an entrance, otherwise so good, might be convenient for the Court of their sanctuary, if it did not also form a standing protest against idol-worship.

TECHNICAL ART SERIES-1889. PLATE XIX.

DHOLKÂ TÂNKA MASJID

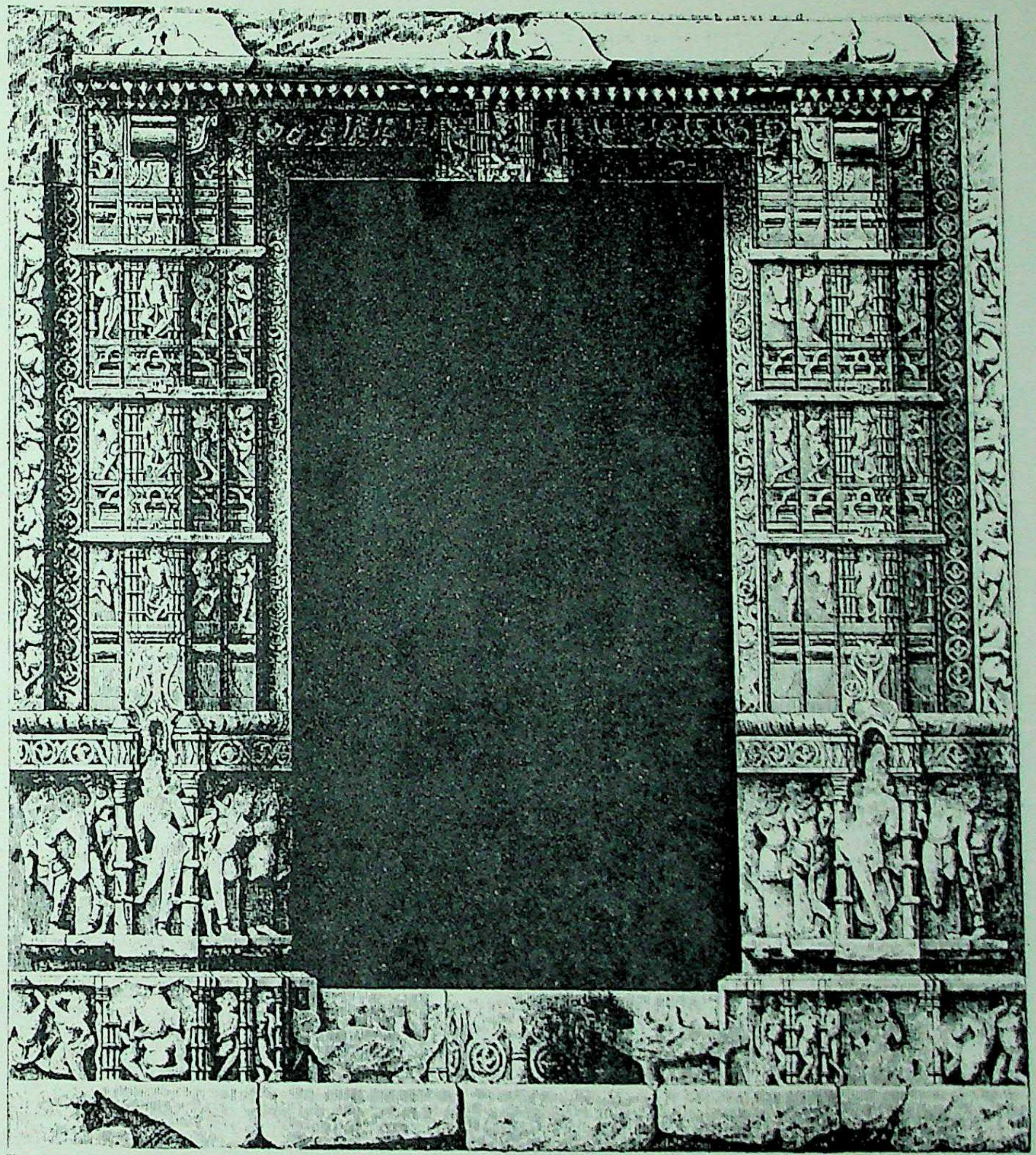


Photo-electrotype.

Survey of India Offices, Calcutta, September 1888.

SCALE OF 12"
1
2
3
4
5 FEET

HINDU DOORWAY ON NORTH SIDE OF THE COURTYARD

J. Burgess, dir.

H. Cousens, Surv.

Gov^t Archæological Survey of Western India

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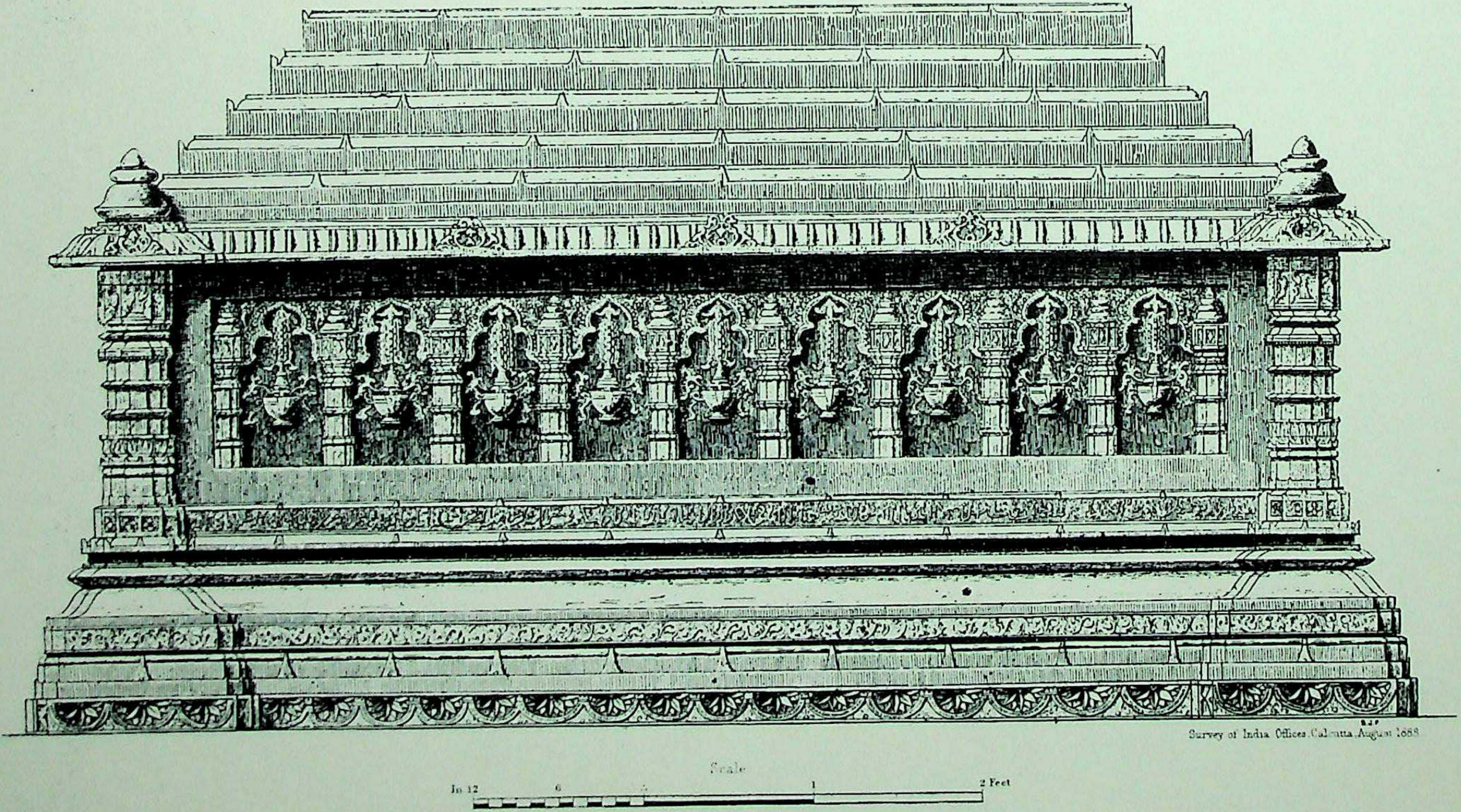
AHMADÂBÂD.



Survey of India Offices, Calcutta, August 1888.

ONE OF THE MARBLE TOMBS OF THE QUEENS OF AHMAD SHÂH

Govt Archæological Survey of Western India

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DHOLKĀ TĀNKA MASJID

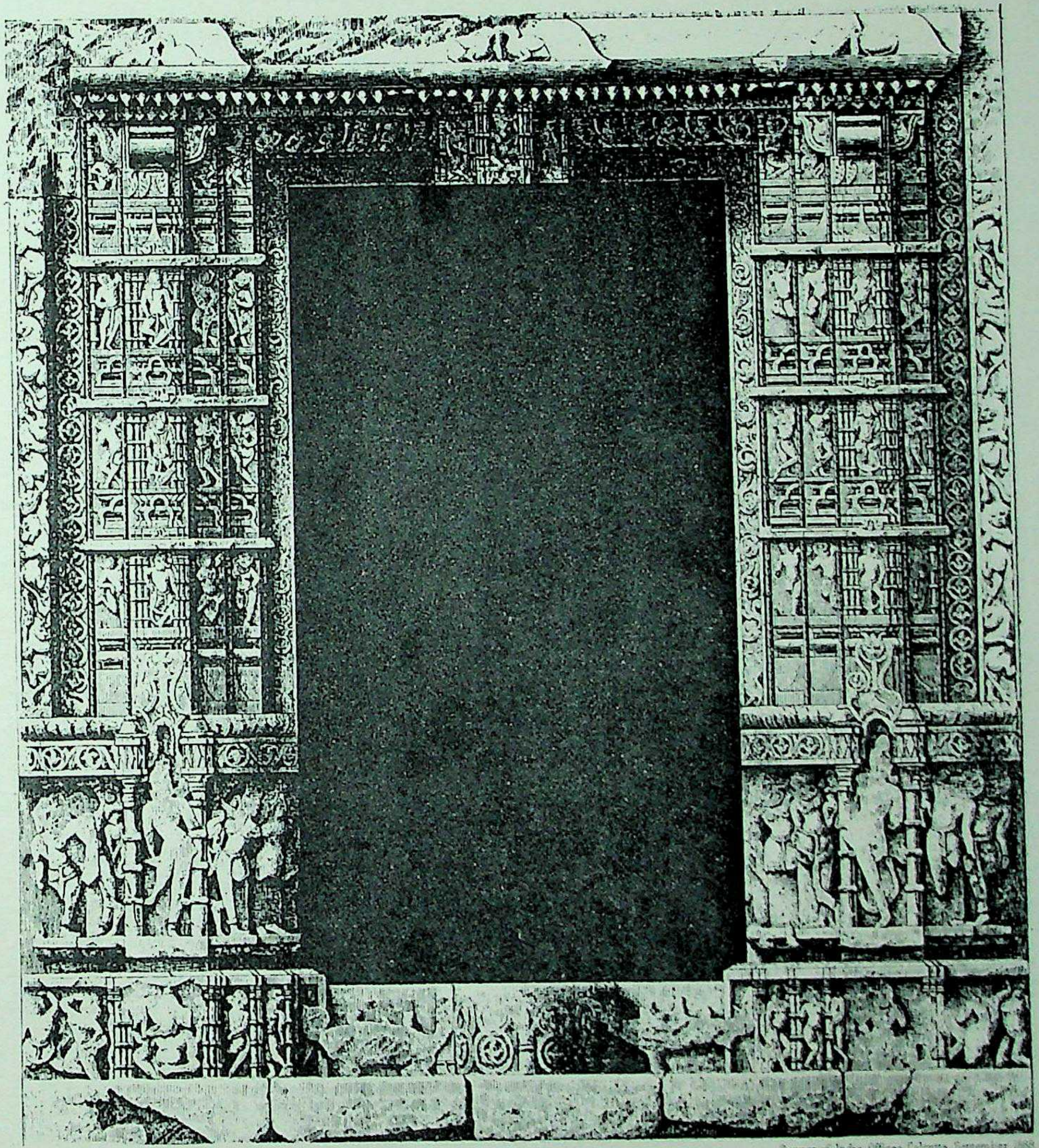
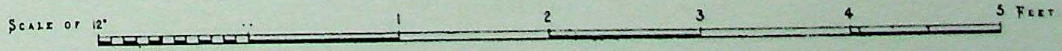


Photo-electrotype.

Survey of India Offices, Calcutta, September 1888.



HINDU DOORWAY ON NORTH SIDE OF THE COURTYARD

J. Burgess, dir.

H. Cousens, Surv.

GOVT ARCHÆOLOGICAL SURVEY OF WESTERN INDIA

PLATES XX AND XXI.

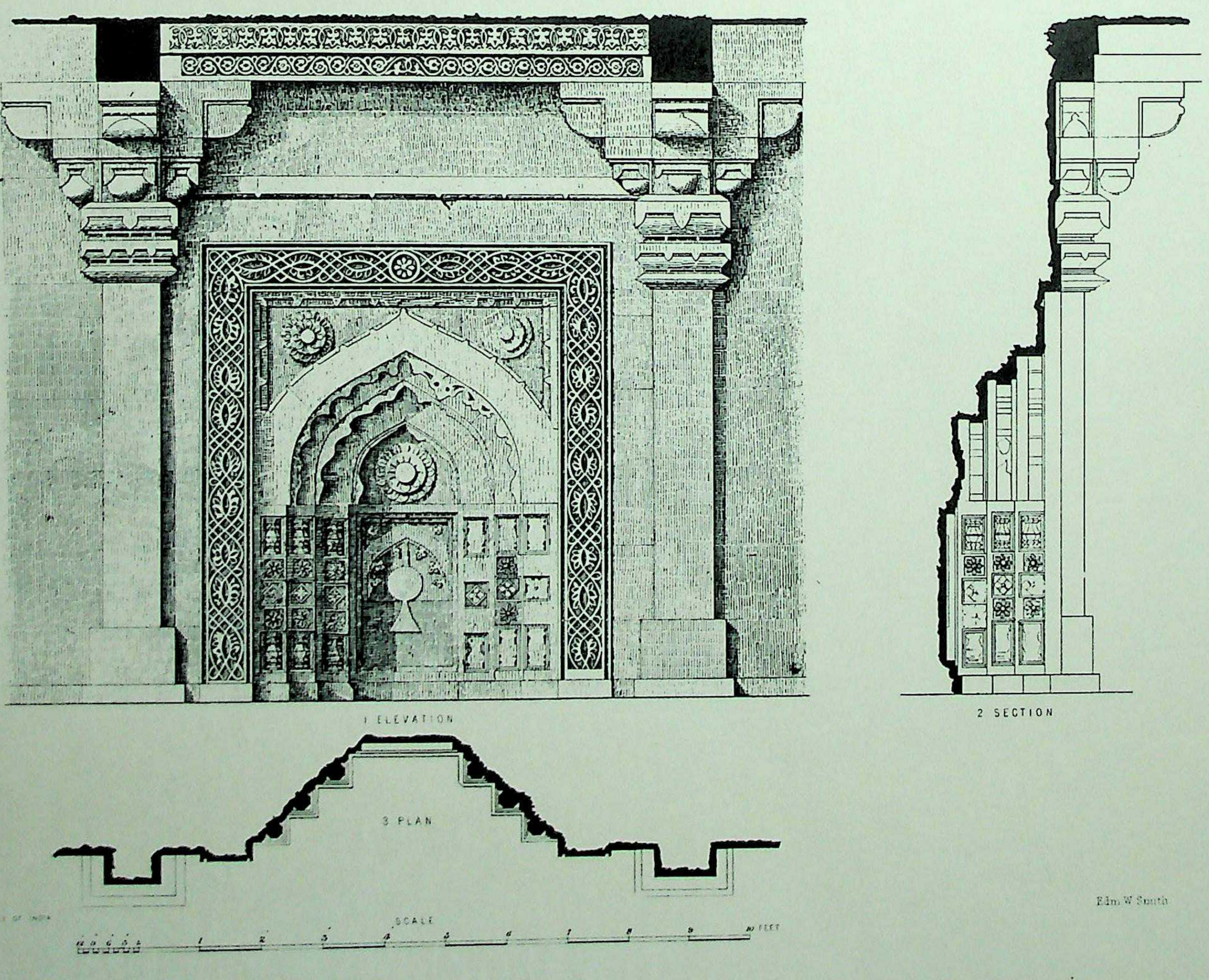
MIHRÂBS FROM THE JÂMI MASJID AT JAUNPUR.

THE Jâmi Masjid or Great Mosque of Jaunpur was founded by Ibrâhîm Shâh Sharqî in A.H. 842(A.D. 1438) and is variously stated to have been completed in A.D. 1448 or in 1478. It is 235 feet in length by 59 deep, and has a court in front, 211½ feet deep by 217 wide, which was surrounded by three storey cloisters, but they were largely destroyed by Sikandar Lodi. The central compartment or hall of the masjid is covered by a dome 39½ feet in diameter and 67½ high, in front of which stands a noble propylon or façade 84⅓ feet in height. On each side of the dome is a compartment 44½ feet by 25½, divided into two storeys by a stone floor supported on pillars,—the floors forming *zanâna* or women's galleries, and reached by stairs from the ground floor. Beyond this, on each side, is a hall 40 feet by 49, covered by a bold pointed vault reaching to a height of 44 feet.

In the west wall of each of the Zanâna galleries are two *Mihrâbs* or *Qibla-gâhs*,—places towards which the Musalman turns in prayer, because in so doing he looks towards Mecca. On the ground floor also there are, for the male worshippers, no less than fifteen *Mihrâbs*. These *Mihrâbs* are always in the form of an arched recess or niche, of greater or less dimensions; and generally there is carved on the back of the recess an ornament representiug a hanging lamp. The origin of these *qiblas* is not far to seek: the first mosques used by the Musalmans were the churches of the Eastern Christians in Syria, Persia and Egypt, and the apse, towards which the audience faced, gave the idea of the *Mihrâb*, and its central lamp continued to be copied in stone after its origin had been quite forgotten and the apse itself contracted to far less than the breadth of the aisle at the end of which it stood, and, at first, almost filled.

The *Mihrâbs* are usually the most carefully decorated parts of the masjids. In Gujarat they are mostly of marble and carved with the utmost care in great varieties of pattern, of which specimens have been given in Plates II, XI, and XVII. In Upper India they are usually of sandstone, as are these from Jaunpur. Plate XX represents one of the two in the north Zanana gallery, and Plate XXI, one of those in the south gallery. They have appeared among Mr. Smith's architectural illustrations in *The Sharqî Architecture of Jaunpur.* In plan and general design they are very much alike. The principal difference is between the architraves,—the carving of that surrounding the *Mihrâb* in Plate XXI being of a quite different character from the other. Again, the angles of the architraves in the former are chamfered and ornamented with facets, while those in Plate XX are square and channelled on each side of the field of carving. The central portions are recessed about 1′ 8″ from the face of the wall, and are arch-panelled and cusped and from the crown of the arch hangs the lamp ornament,—much disguised in these instances. The space between the central area and the architraves is filled by a connecting series of angle-shafts, formed of small octagonal balusters and ornamented square dies, over the heads of which cusped arches are turned. The spandrils between the architraves and the extrados of the arch are panelled, moulded, and decorated with rosettes. The face of the tympanum of the inner arch is relieved by a boldly carved *patera* or rose. The pilasters on each side also present examples of the character of the capitals employed in this 15th century mosque.

JAUNPUR JÂMIʹ MASJID


1 ELEVATION
2 SECTION
3 PLAN
SCALE
1
2
3
4
5
6
7
8
9
10 FEET

Archaeological Survey of India

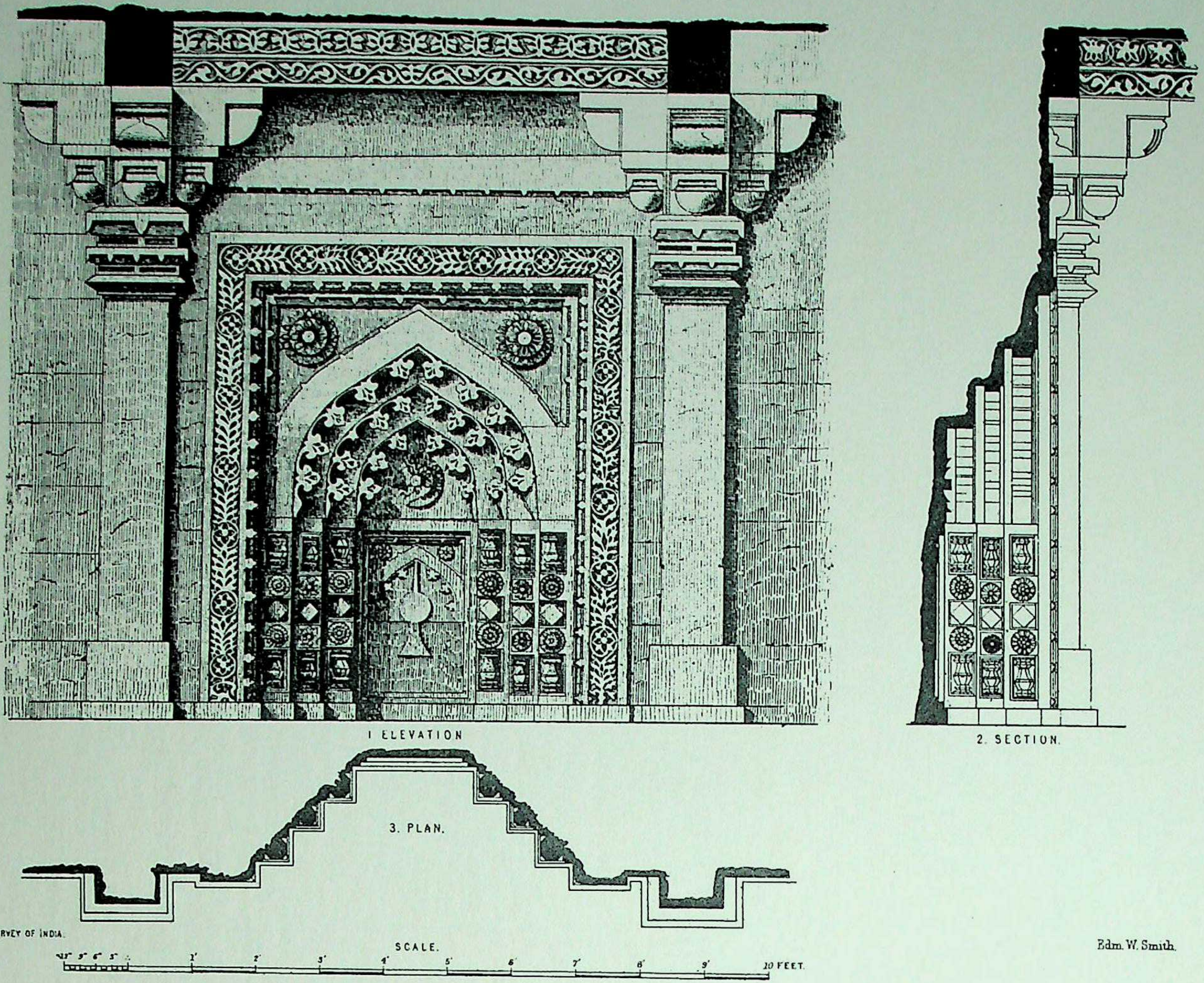
Edm. W Smith

MIHRÂB IN NORTH ZANÂNA GALLERY

PLATE XXI.

PLATE LXIII.

JAUNPUR JÂMÎ' MASJID.


1 ELEVATION
2. SECTION.
3. PLAN.
SCALE.
12" 9" 6" 3" 0
1'
2'
3'
4'
5'
6'
7'
8'
9'
10 FEET.

ARCHÆOLOGICAL SURVEY OF INDIA.

Edm. W. Smith.

MIHRÂB IN SOUTH ZANÂNA GALLERY.

Photo-etching

Survey of India Offices, Calcuttá, November 1888.

PLATES XXII, XXIII, AND XXIV

ROOF PANELS FROM THE JÂMI MASJID AT JAUNPUR.

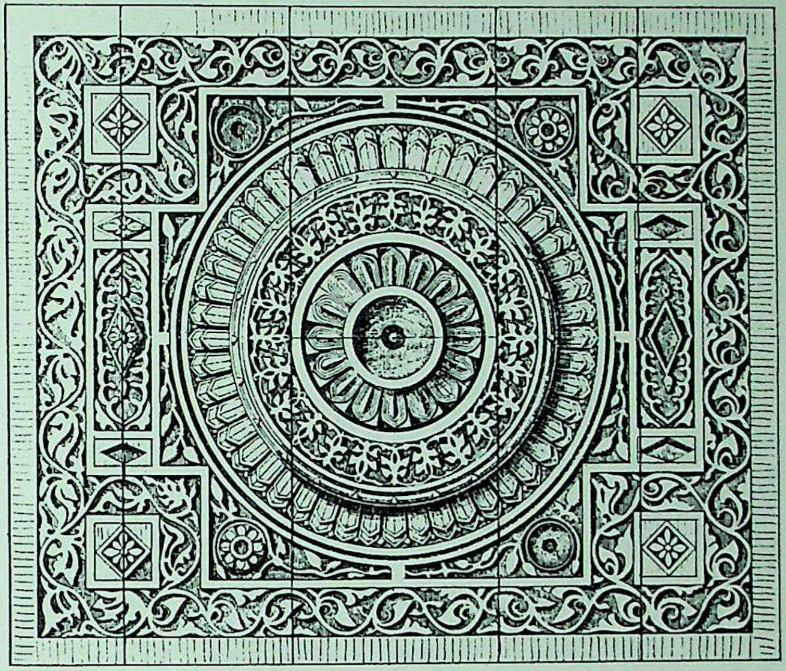
THESE three plates, also taken from the Archæological Survey volume on *The Sharqî Architecture of Jaunpur*, present very characteristic examples of the surface decoration employed in the Muhammadan style of Northern India in the 15th century. The Zanâna galleries, described above, are oblong, and each is divided by square pillars into three aisles, with five pillars between the central and each side aisle. These support horizontal architraves which divide the roof into eighteen casettes or panels, nine of them smaller than the others, and about half in each gallery are carved in beautiful patterns of low relief.

The first panel on Plate XXII is from the south-west corner of the south Zanâna gallery, its longest dimension being from east to west, and the left side being next to the back or west wall. The second figure on the same plate represents the panel second from the back and borne between the innermost four pillars. On Plate XXIII is a third panel from the same roof, being that behind the preceding and just to the north of the first. It is over the bay immediately in front of the Miḥrâb, already given from this gallery. The panel to the left of it is somewhat similar to the corresponding one in the south-west corner, but differs in details, as shown on the lower margin of the drawing.

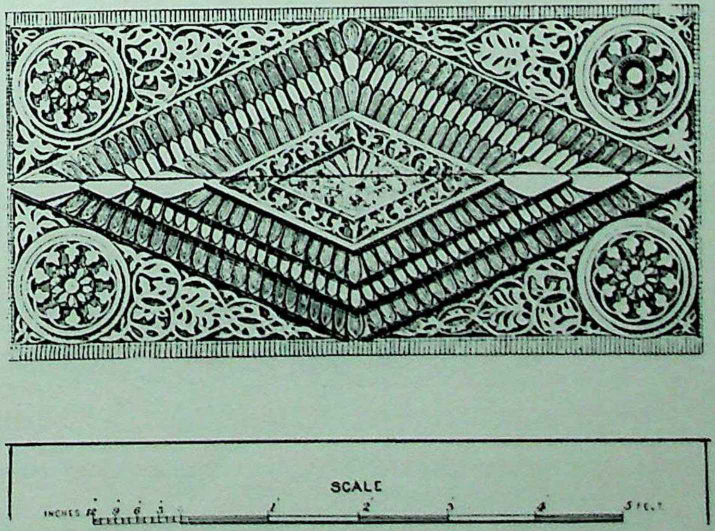
In Plate XXIV two panels are given from the roof of the north gallery, presenting further varieties of decorative treatment. The upper drawing is from the centre of the roof, and the lower is the second from the front in the north side. Both are very richly carved, and though leakage through the roof has rotted parts of the stone, they are still in remarkable preservation.

It hardly need be pointed out how fitted these patterns are for designs whether in wood, plaster, stone or silver, and in what a variety of circumstances they may be applicable.

JAUNPUR JÂMI MASJID

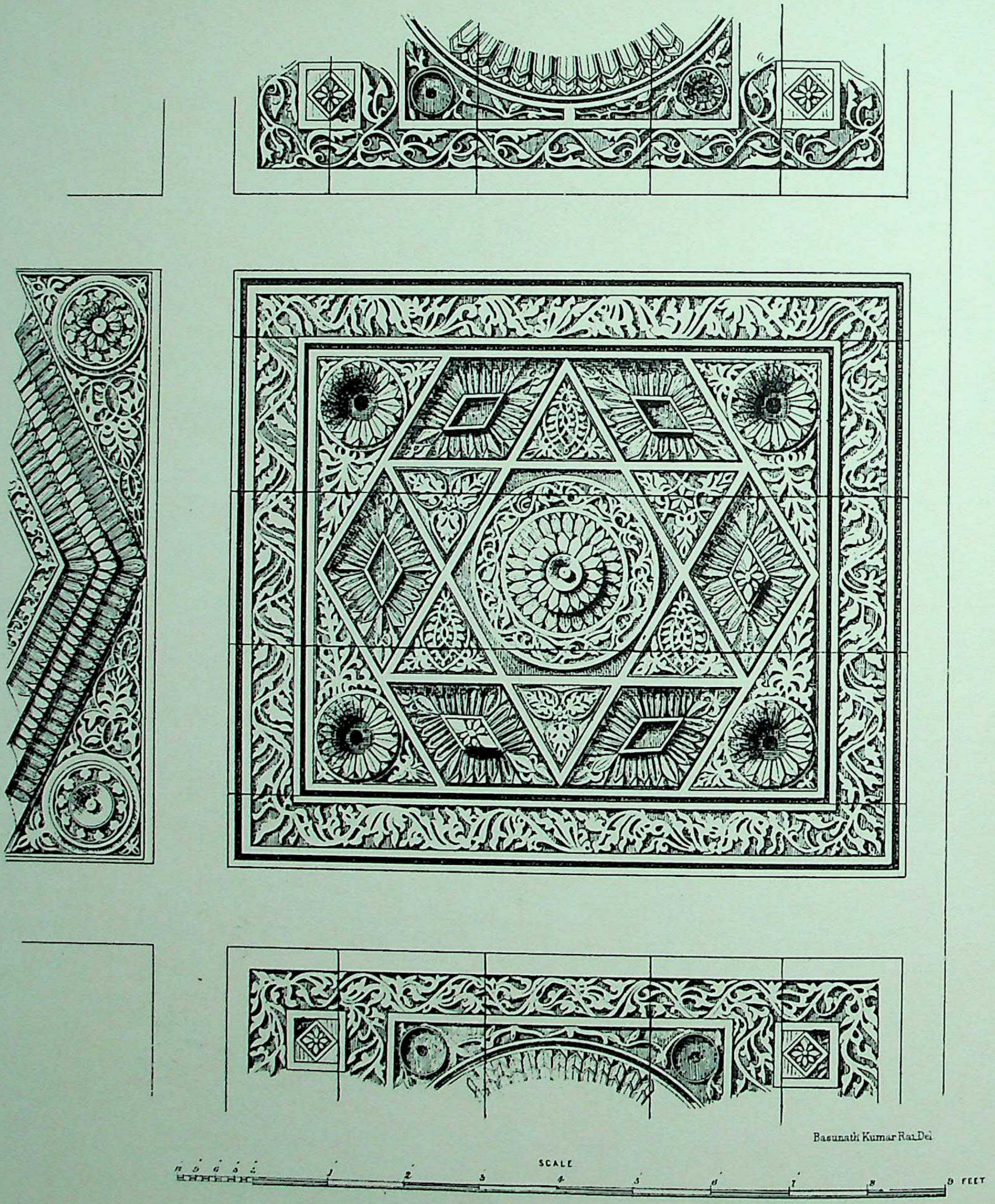


1. PANEL A IN THE ROOF OF THE ZANÂNA GALLERY


SCALE
INCHES 12 9 6 3 0 1 2 3 4 5 FEET

2. PANEL B IN THE ROOF OF THE ZANÂNA GALLERY

JAUNPUR JÂMÏ MASJID


SCALE
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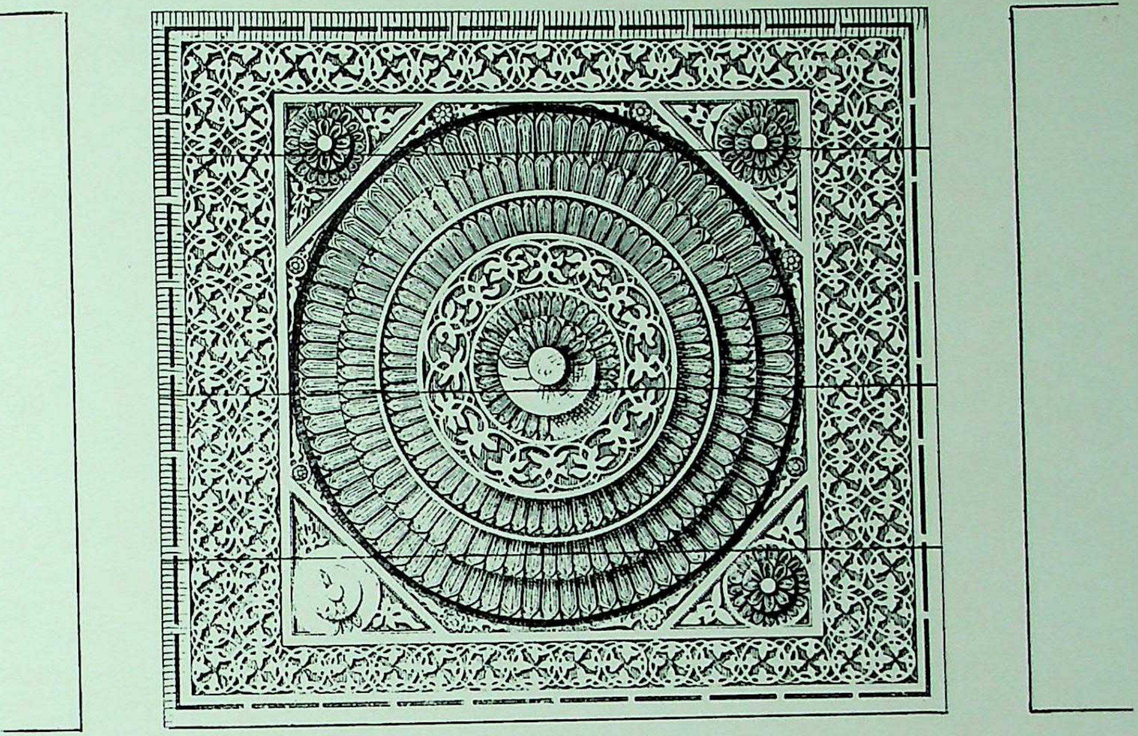
7
8
9 FEET

Basunath Kumar Rai Del

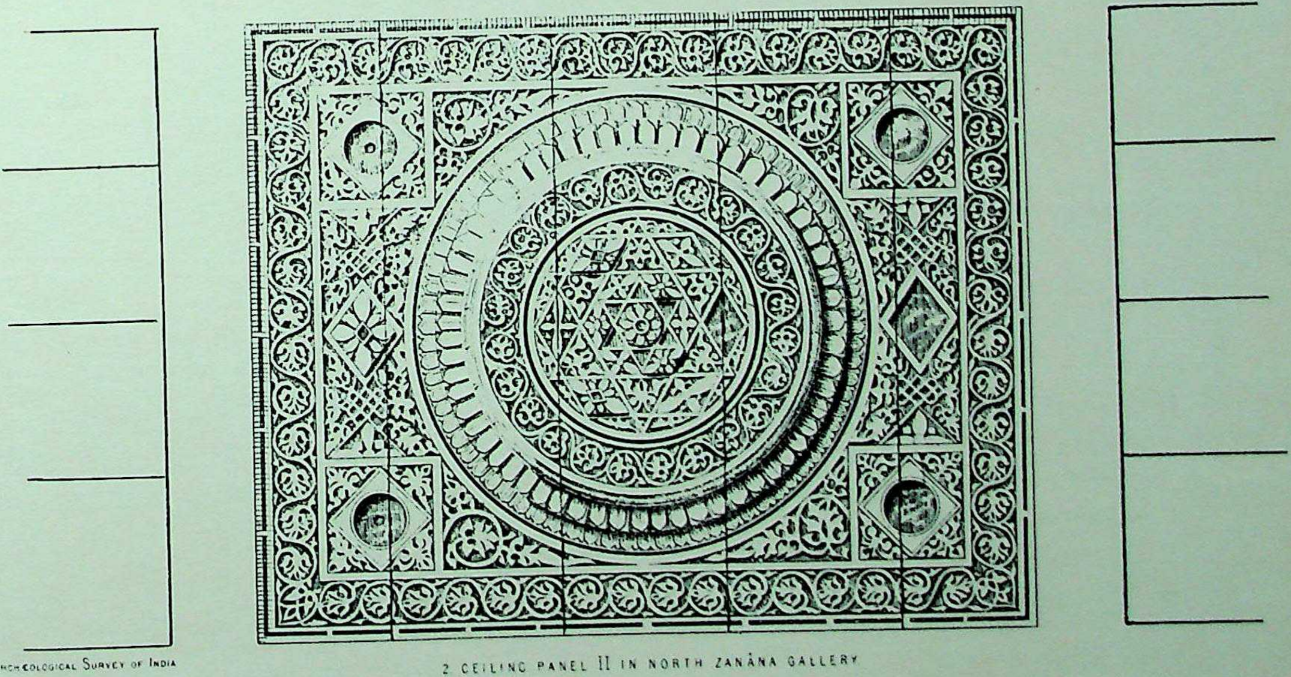
PANEL C IN THE ROOF OF THE SOUTH ZANÂNA GALLERY

Survey of India Offices Calcutta, November 1888

JAUNPUR JÂMÎ MASJID

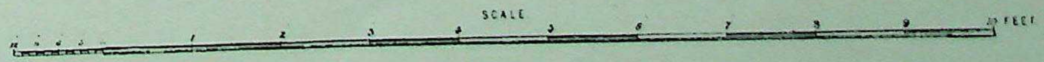


1 CEILING PANEL I IN NORTH ZANÂNA GALLERY



ARCHÆOLOGICAL SURVEY OF INDIA

2 CEILING PANEL II IN NORTH ZANÂNA GALLERY


SCALE
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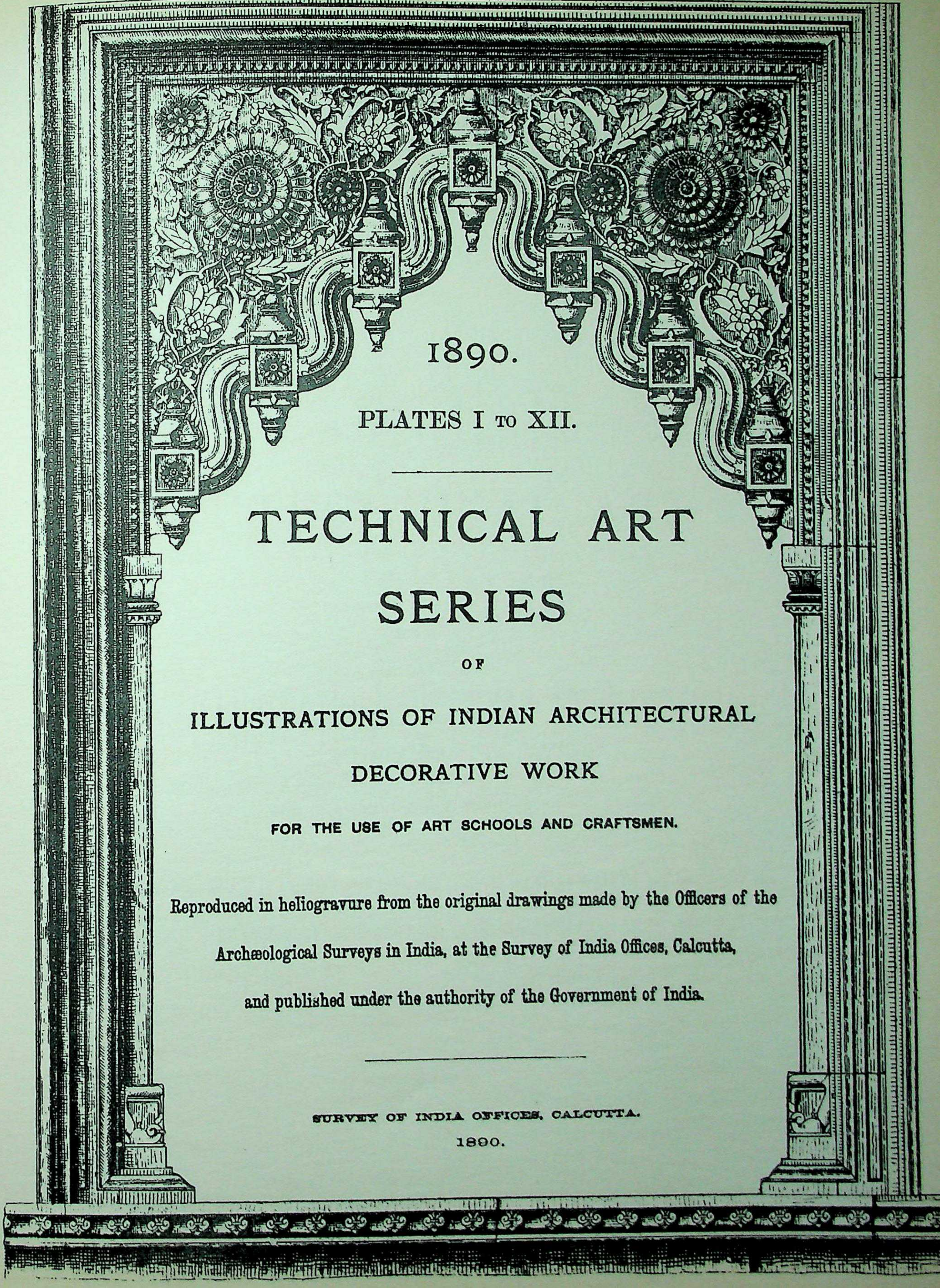
CC-0. Agamnigam Digital Preservation Foundation, Chandigarh



1890.

PLATES I TO XII.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the Archæological Surveys in India, at the Survey of India Offices, Calcutta, and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.
1890.

CONTENTS.

I & II.—Ceilings in raised Stucco from a ruined Palace at Bijapur.
III.—Cornice and Bracket from Malikajahan Begum's Mosque at Bijapur.
IV.—Ceiling in Stucco from the Chhota 'Asar Mosque at Bijapur.
V.—Iron Mountings from Shah Karim's Tomb and Mihtar-i-Mahall.
VI.—Half Inner Doorway and Outer Door, Mihtar-i-Mahall.
VII.—Details of Ornament from various buildings at Bijapur.
VIII.—Brackets from the Nava-Gumbaz and Kumbhar Masjid at Bijapur.
IX.—Stone Ceiling Panels from the Ibrahim Rauza, Bijapur.
X.—Door from the Ibrahim Rauza at Bijapur.
XI.—Old Persian Carpet Designs.
XII.—Perforated Stone Screen-work from Chalukyan Temples.

TECHNICAL ART SERIES
OF
ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK.
PLATES I to XII 1890.

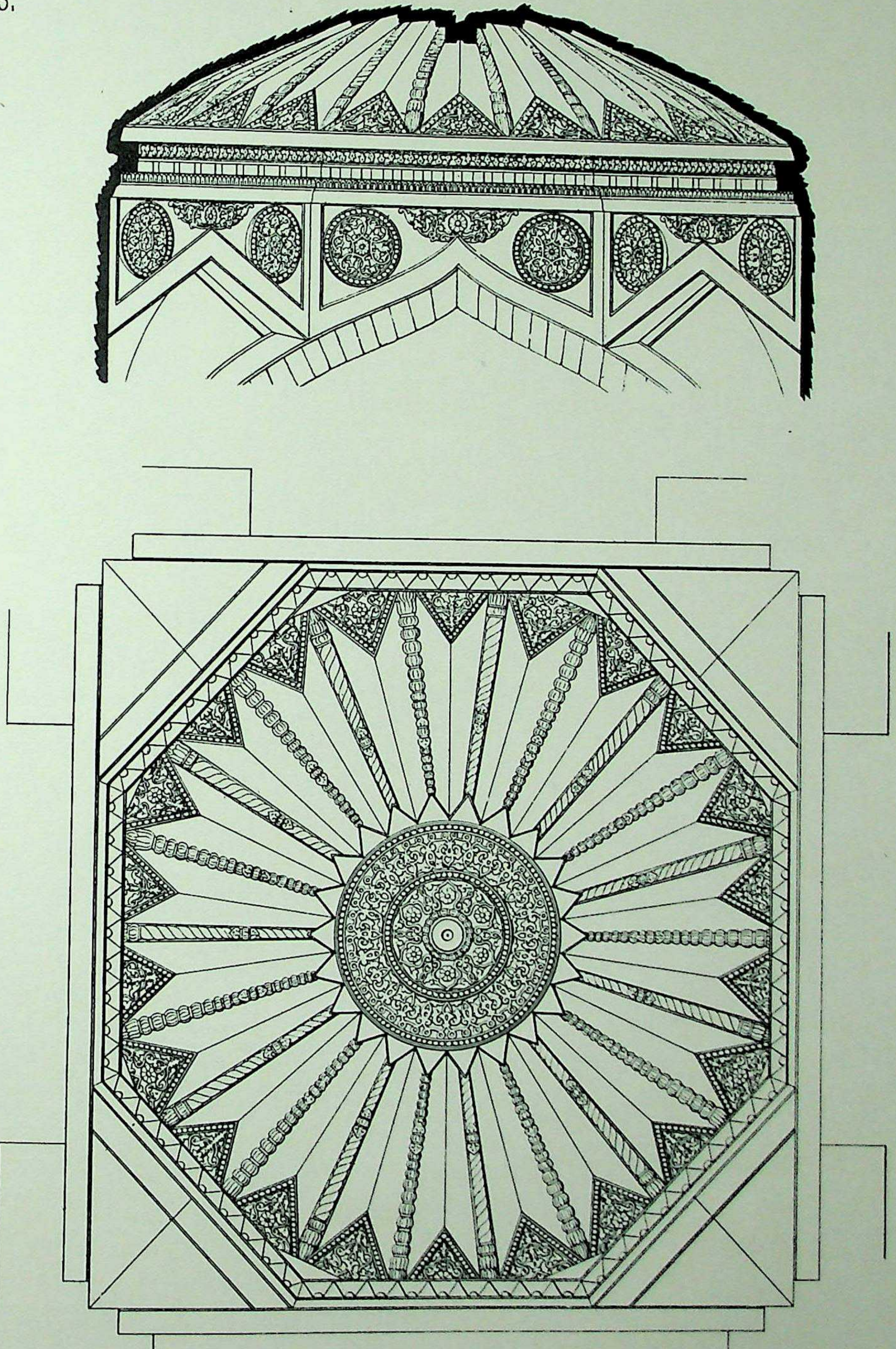
PLATES I AND II.

CEILINGS IN RAISED STUCCO FROM A RUINED PALACE AT BIJAPUR.

WITHIN the old citadel of Bijapur, to the east of the Sāt Manzil, or seven-storeyed palace, is a ruined structure, vulgarly known as " the Mint," but which was doubtless a Mahāll or residence. In the upper storey of this ruin we find some of the best designs in plaster that now remain at Bijapur. Many of the old buildings contained a very great deal of this beautiful surface tracery, but from various causes, and especially where exposed, very little of it now remains, and that little in a very mutilated state. The examples in these plates, however, have escaped almost intact, though some of the ceiling panels have been destroyed. As produced in these plates, in black and white line-work, they hardly give an adequate idea of the effect produced by the soft lights and shadows on the creamy plaster.

In working out these patterns, the workmen seem to have laid on the plaster in flat masses, and while wet, carved out the patterns to depths varying from three-eighths to three-quarters of an inch. The radiating ribs in Plate I are deeper than the flat work at the centre and edges The central pendents of both ceilings have been destroyed.

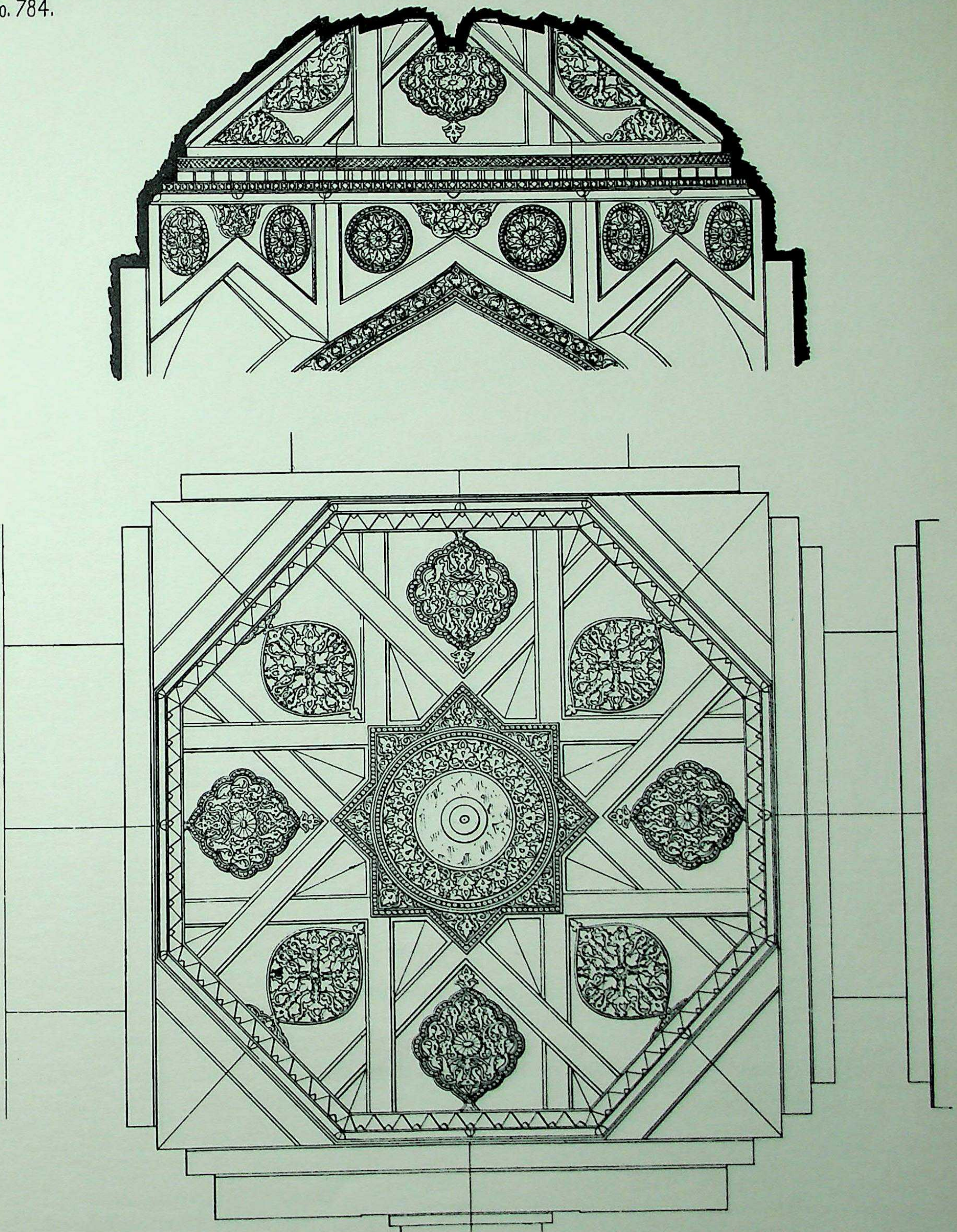
Govt. Archæol. Survey of Western India.
No. 783.



CEILING IN RAISED STUCCO FROM A RUINED PALACE IN THE CITADEL. BIJAPUR.

SCALE OF 12" 1 2 3 4 5 FEET.

Govt. Archæol. Survey of Western India.
No. 784.



CEILING IN RAISED STUCCO FROM A RUINED PALACE IN THE CITADEL, BIJAPUR.

SCALE OF 12 1 2 3 4 5 FEET.

PLATE III.

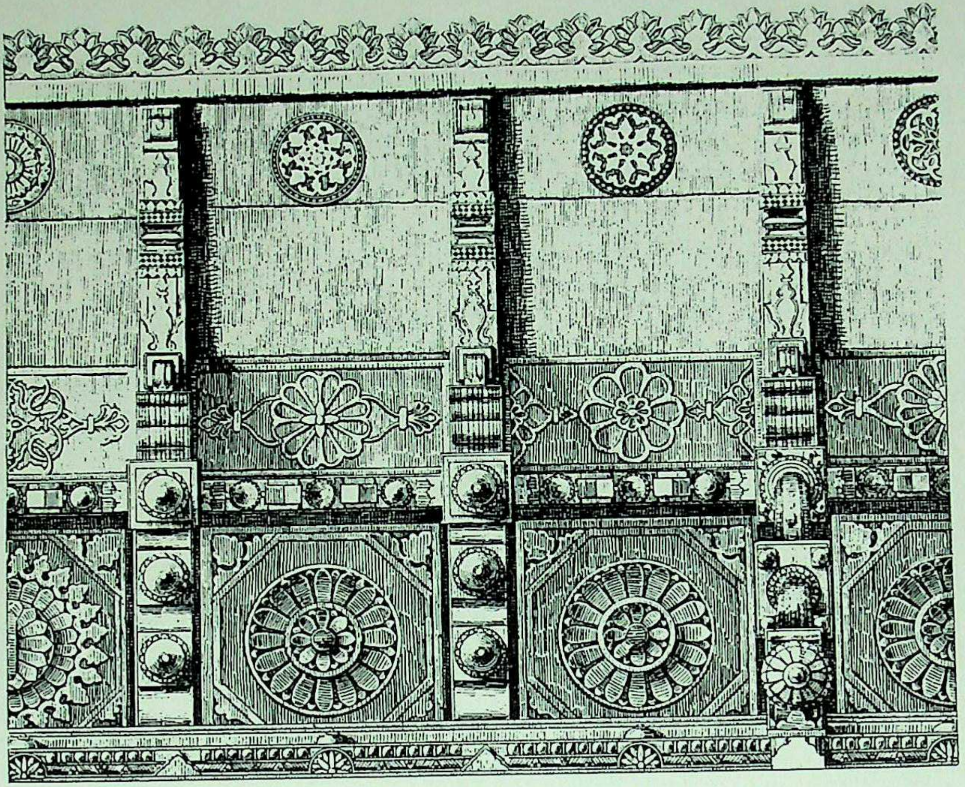
CORNICE AND BRACKET FROM MALIKAJAHAN BEGUM'S MOSQUE AT BIJAPUR.

A NOTABLE feature in the Bijapur buildings is the projecting eaves with their beautifully carved supporting brackets. These are common also, though different in detail, in the Hindu temples of the surrounding country. In the Bijapur architecture the projecting eaves are formed of large, thin, flat slabs which are supported at intervals by brackets connected together below by transverse tie pieces. Longer or double brackets are introduced at intervals above the piers that divide the façades below. In this plate a section of the cornice between two brackets is given, and the long bracket shewn, built out, as it were, beyond the shorter one. The soffits of the two shorter brackets on the plan correspond to the two hanging buds or knobs in the upper portion of the larger one. All the ornamental surface work is carved in low relief; and this particular cornice has a beautifully scalloped fringe along its outer edge or drip. From the bottom of the long brackets a rib is continued down the face of the wall, the front of which is shewn in the small detached figure.

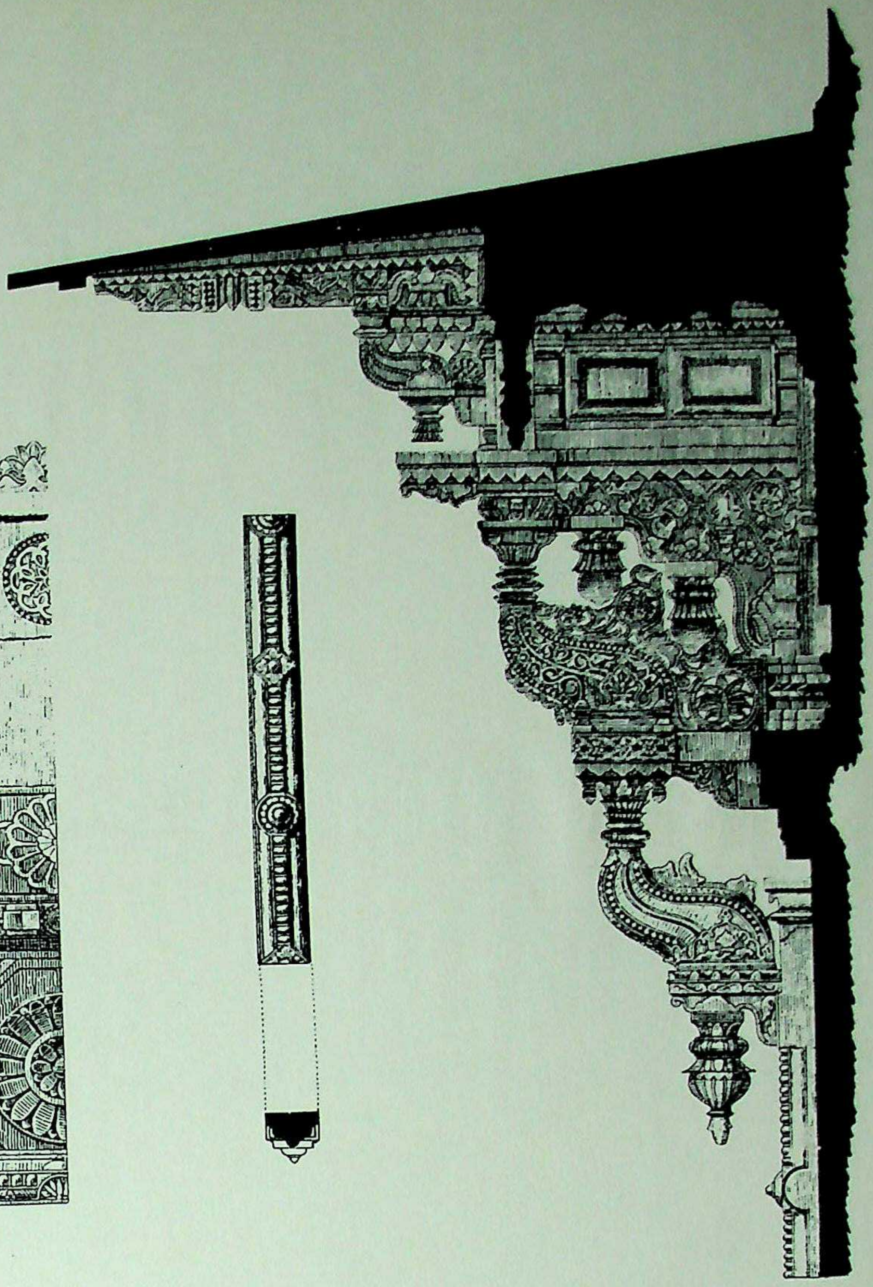
The building is ascribed to Ibrahim II (A D. 1579-1626), and is said to have been built in honor of his wife, Jahan Begum, in 1587.

Govt. Archæol. Survey of Western India.

No. 786.



Plan.



Section shewing bracket.

CORNICE FROM MALIKA JEHAN BEGUM'S MOSQUE. BIJAPUR.

SCALE OF 12" 1 2 3 4 5 6 7 8 9 10 FEET.

PLATE III.

CORNICE AND BRACKET FROM MALIKAJAHAN BEGUM'S MOSQUE AT BIJAPUR.

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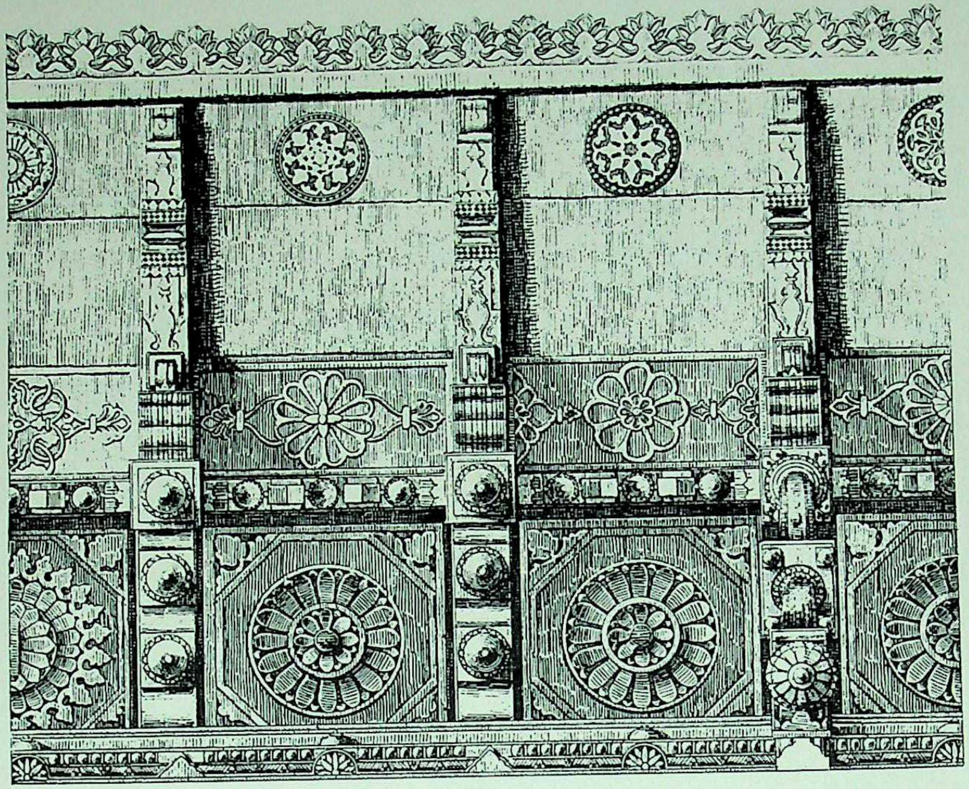
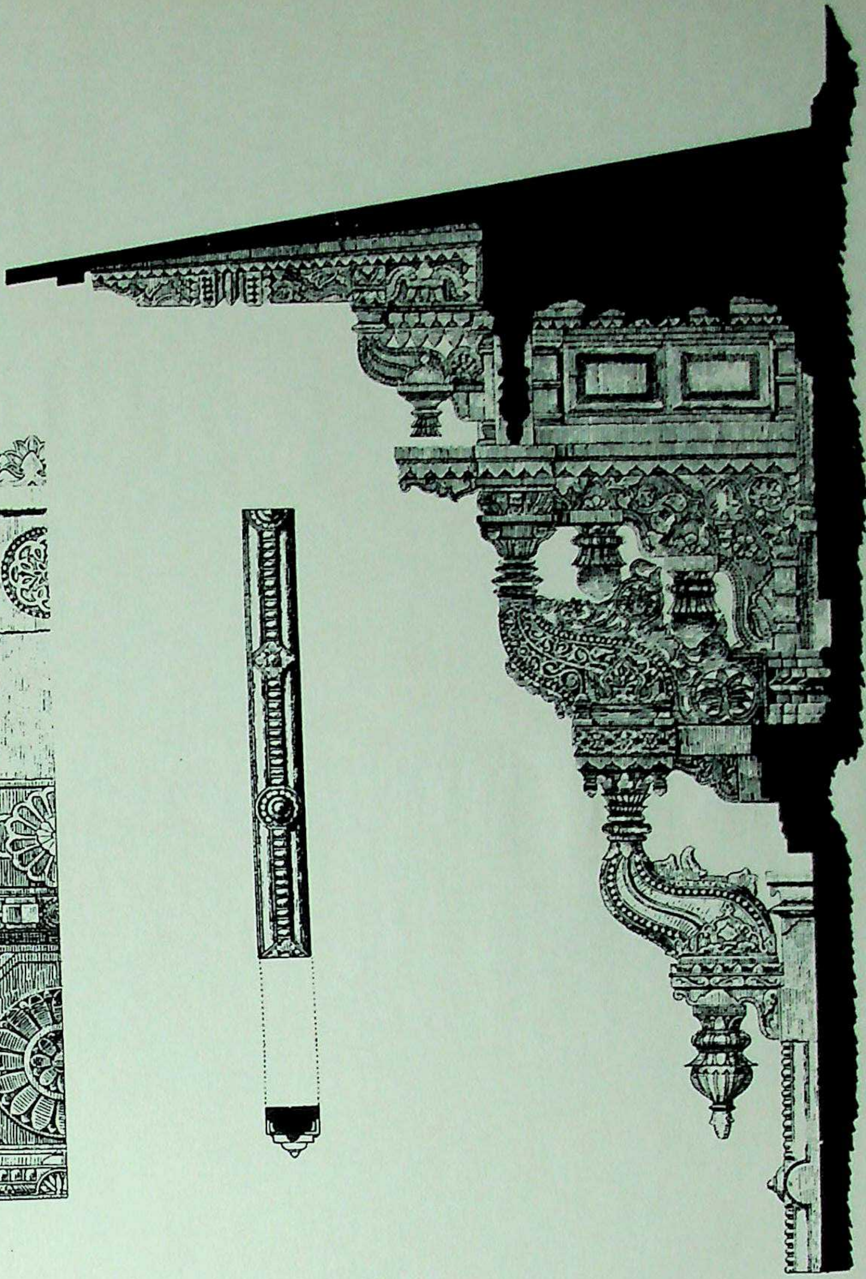


Plan.



Section shewing bracket.

CORNICE FROM MALIKA JEHAN BEGUM'S MOSQUE. BIJAPUR.

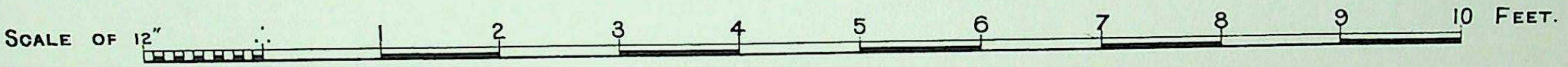

SCALE OF 12"
1
2
3
4
5
6
7
8
9
10 FEET.

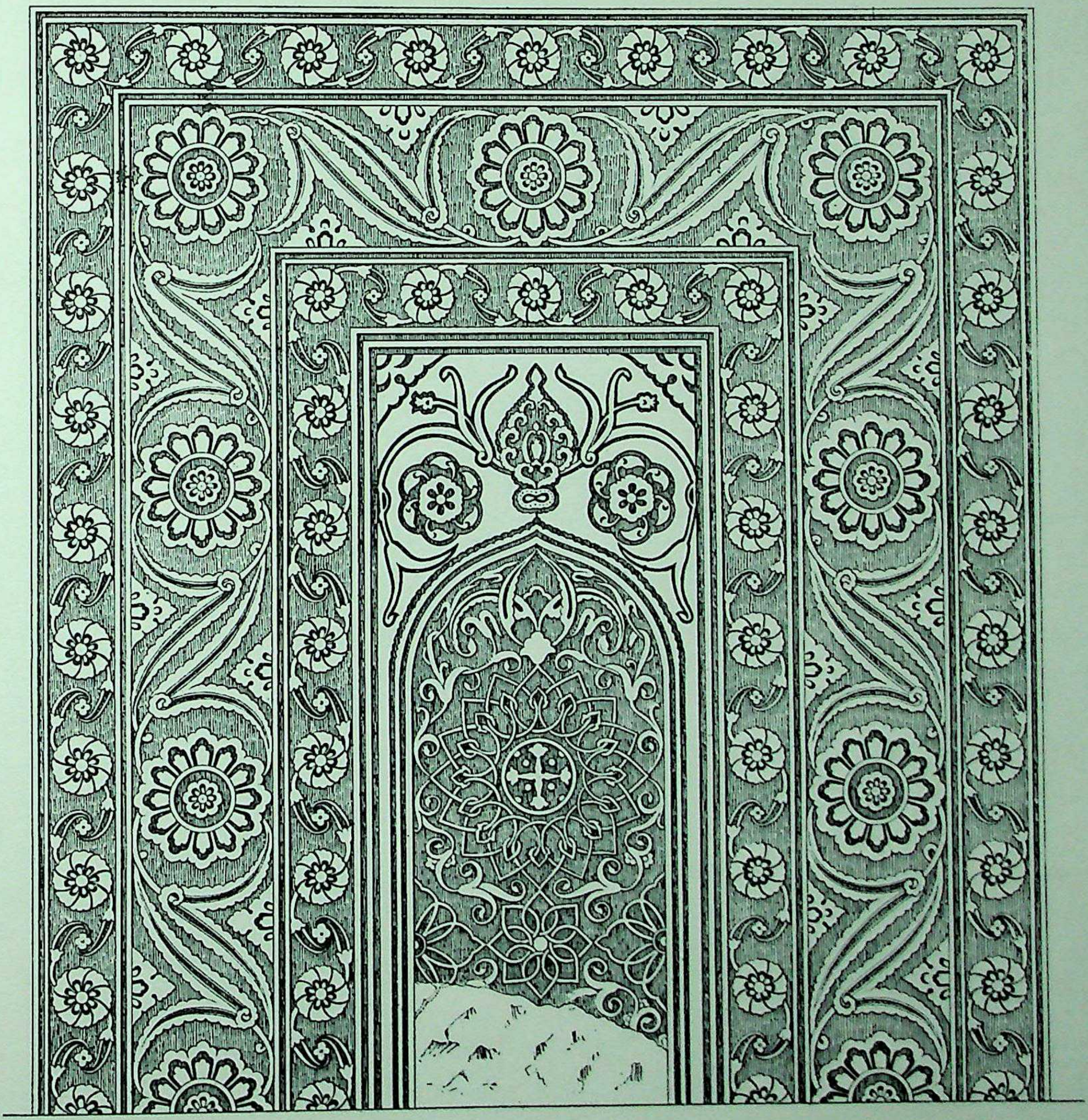
PLATE IV.

CEILING IN STUCCO FROM THE CHHOTA 'ASAR MOSQUE AT BIJAPUR.

THIS plate represents half the ceiling of a small mosque which contains some very good plaster-work both on the walls and ceilings. The roof is waggon-vaulted, the central rectangular space being flat, while the broad border round it slopes downwards to the walls. The plaster-work seems also to have been further embellished with colour of which traces remain; and the sunk surfaces within the design were black, thus throwing out the pattern in violent contrast; but the taste of this is questionable.

There is a little variety here in the broad border from the usual purely geometric outlines that usually prevail. The long leaves are thrown in between the flowers with good effect.

Govt. Archæol. Survey of Western India.
No. 789.



CEILING IN STUCCO FROM THE CHHOTA ASAR MOSQUE. BIJAPUR.

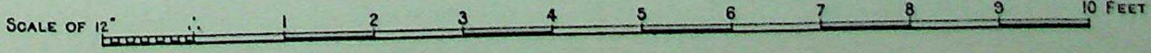
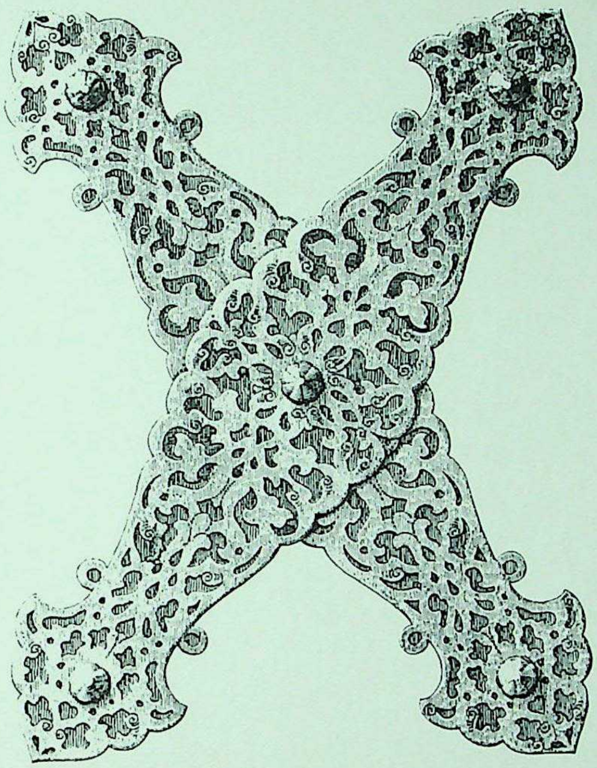

SCALE OF 12"
1
2
3
4
5
6
7
8
9
10 FEET

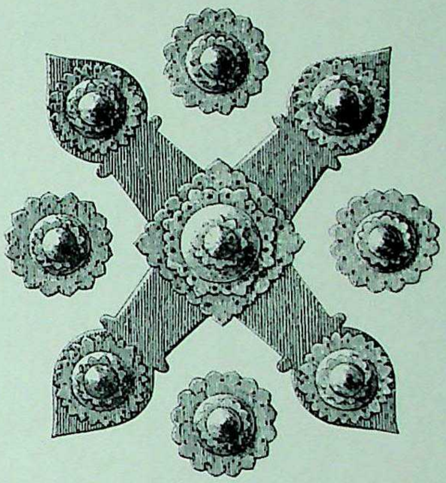
PLATE V.

IRON MOUNTINGS FROM SHAH KARIM'S TOMB AND MIHTAR-I MAHALL.

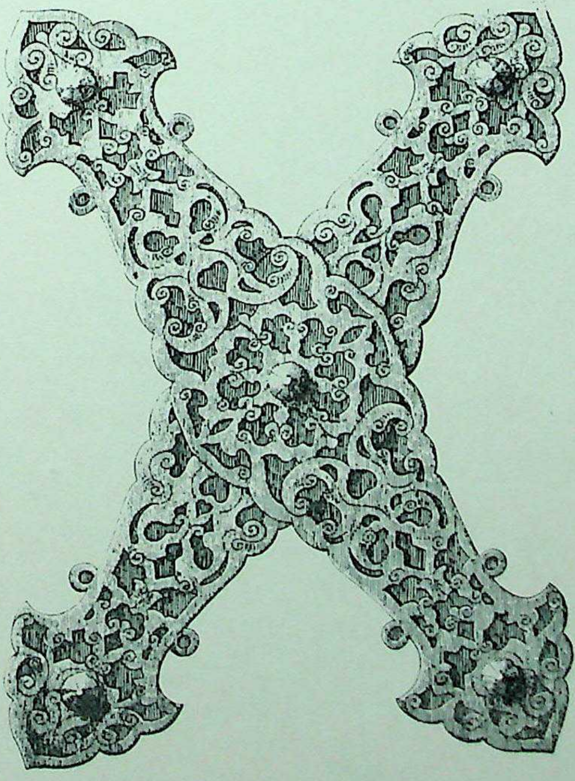
ON this plate are given four examples of iron clamping and bosses, one of which, on the upper right-hand side, is from the door of the Mihtar -i Mahâll, shewn on Plate VI. This is made of separate pieces and rings held together by the studs or heads of nails driven right through the door. The other three specimens are from the doors of Shah Karim, beside the Jami' Masjid, each consisting of two perforated pieces, and fastened to the door by five studs. The design of each is different, while the shape is the same.

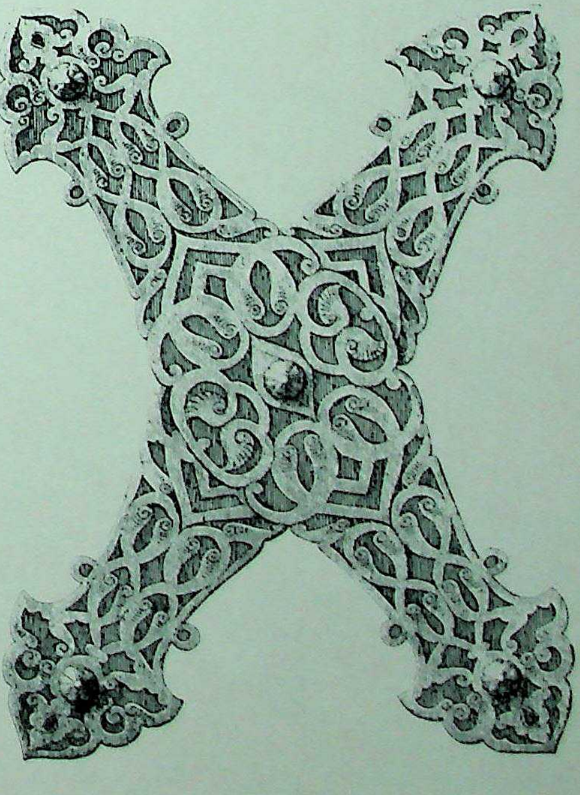
Govt. Archæol. Survey of Western India.
No. 807.





SCALE OF 12" INCHES





SCALE OF 6" INCHES.

IRON BOSSES FROM SHAH KARIM'S TOMB AND THE MIHTARI MAHAL, BIJAPUR.

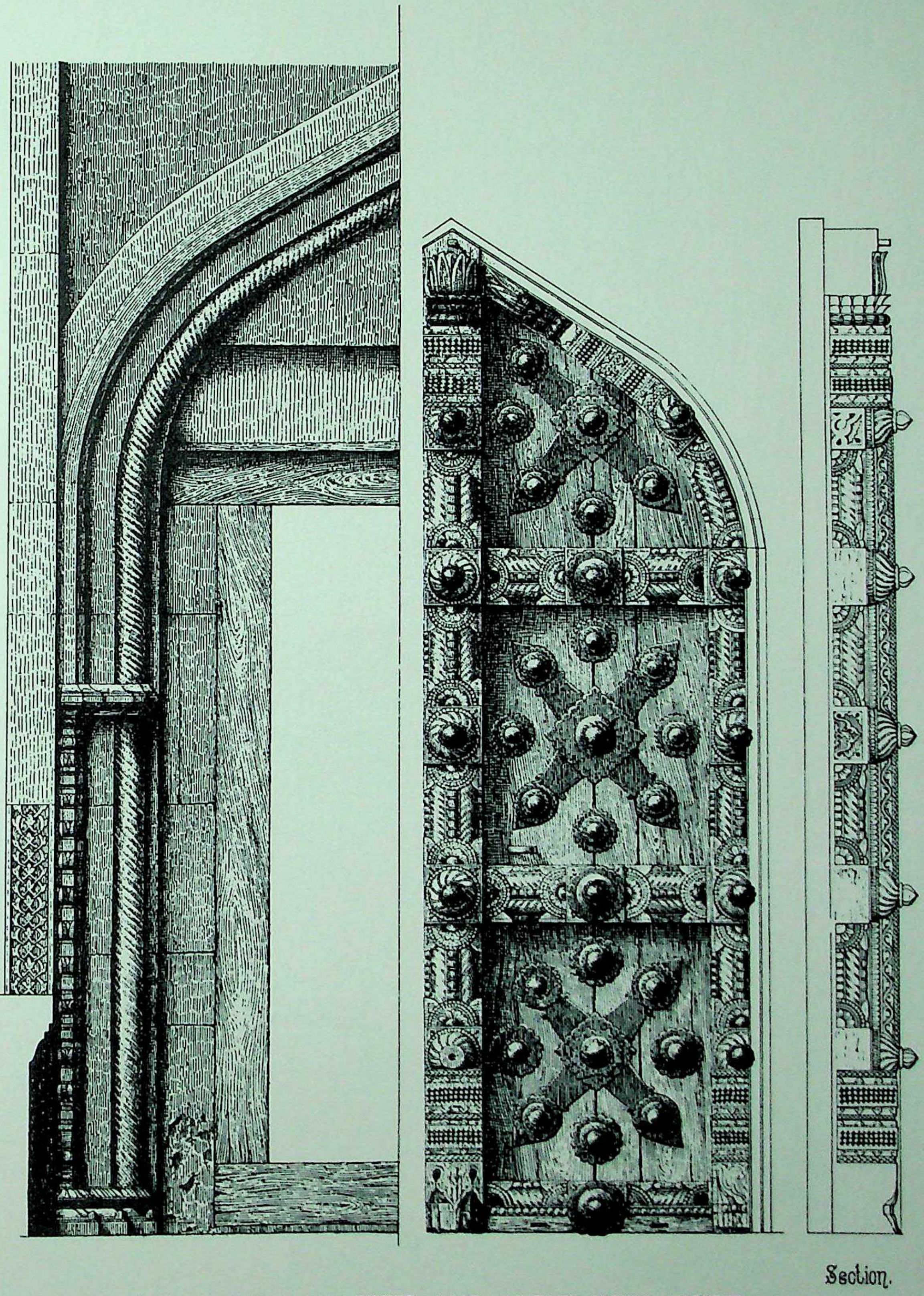
PLATE VI.

HALF INNER DOORWAY AND OUTER DOOR, MIHTAR-I MAHALL.

THE wooden door closes the main entrance from the road; and the doorway with the rope-moulding round it is at the opposite side of the hall, and opens into the court-yard of the mosque. The whole structure of the Mihtar-i Mahâll is little else but an elaborate gateway, with rooms above, giving access to the small mosque beyond.

The outer door, in two ponderous leaves of wood, is decorated with carved rails, which, with the panels, are embellished with wrought-iron bosses and clamps. The inner doorway is deserving of notice for the rope moulding, which is not elswhere found in the architecture of Bijapur.

Govt. Archæol. Survey of Western India.
No. 817.



HALF INNER DOORWAY AND OUTER DOOR, MIHTARI MAHAL, BIJAPUR.

SCALE OF 12" 1 2 3 4 5 FEET.

Photo-etching

PLATE VII.

DETAILS OF ORNAMENT FROM VARIOUS BUILDINGS AT BIJAPUR.

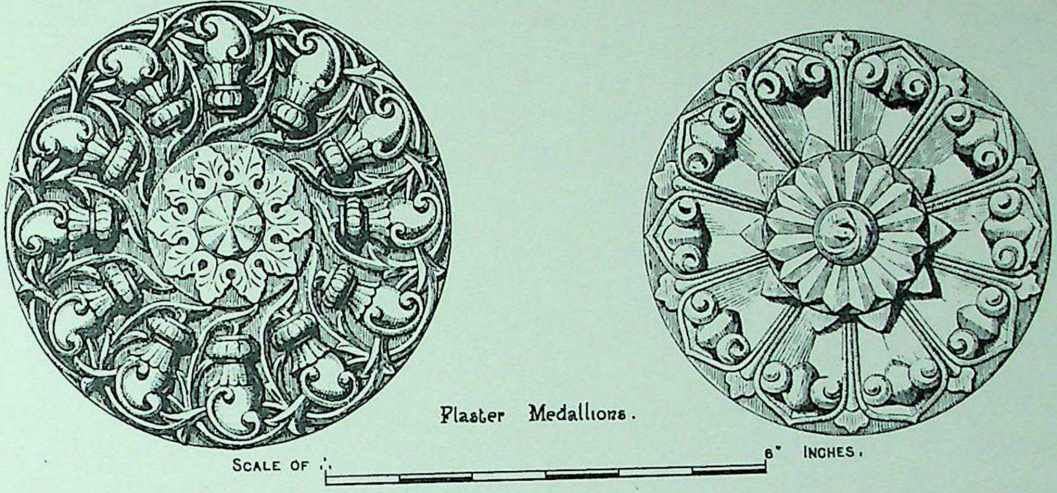
THE two plaster medallions given on this plate are from a small tomb close to Pīr Shaikh Hamid Qadir's. They are used as decoration on the surface of the building and worked in high relief.

The perforated circular window is from the same building, being placed above the arched entrance on the east front. Circular windows are very rare in Indian work.

The two corner panels are from a tomb in a field north-east from the last. They are worked in plaster, just under the springing of the dome in the interior.

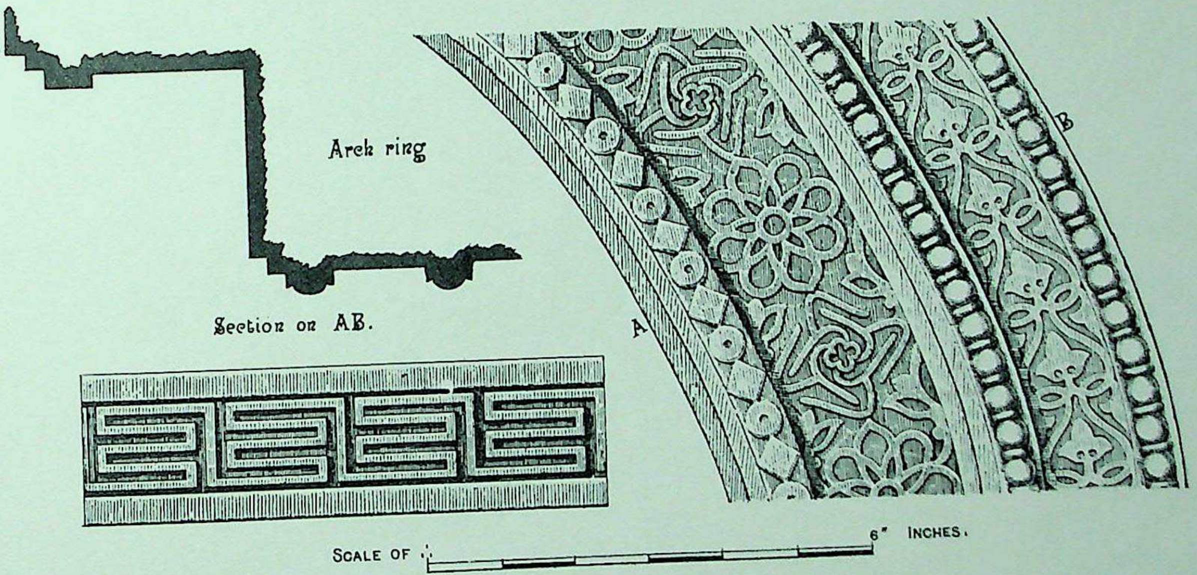
The moulding on the front of an arch and the fret are from the tomb of Kishwar Khan near the Naubāgh, and, like others, are in plaster-work. The section explains the relief of the different members.

Govt. Archæol. Survey of Western India.
No. 832.



Plaster Medallions.

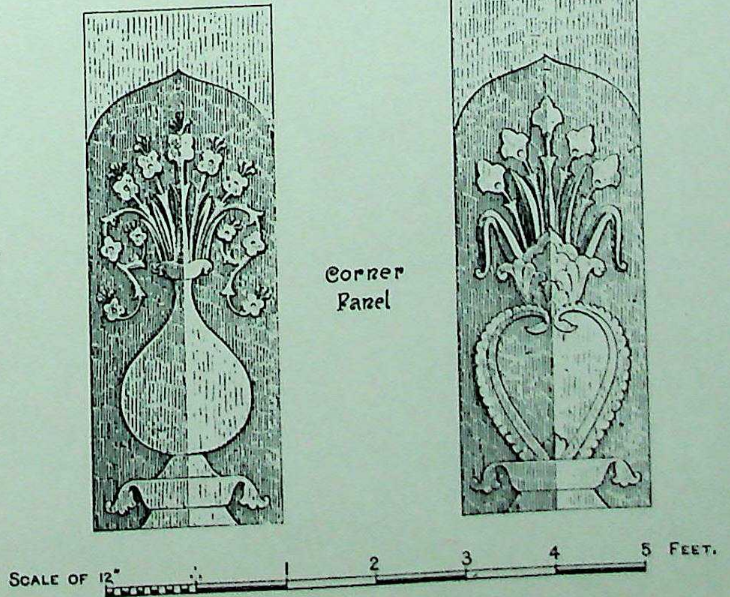
SCALE OF
6" INCHES.



Arch ring

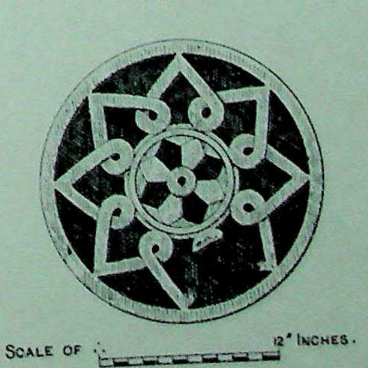
Section on AB.

A
B
SCALE OF
6" INCHES.



Corner Panel

SCALE OF 12"
1
2
3
4
5 FEET.



Window

SCALE OF
12" INCHES.

DETAIL OF ORNAMENT FROM VARIOUS BUILDINGS, BIJAPUR.

Photo-etching

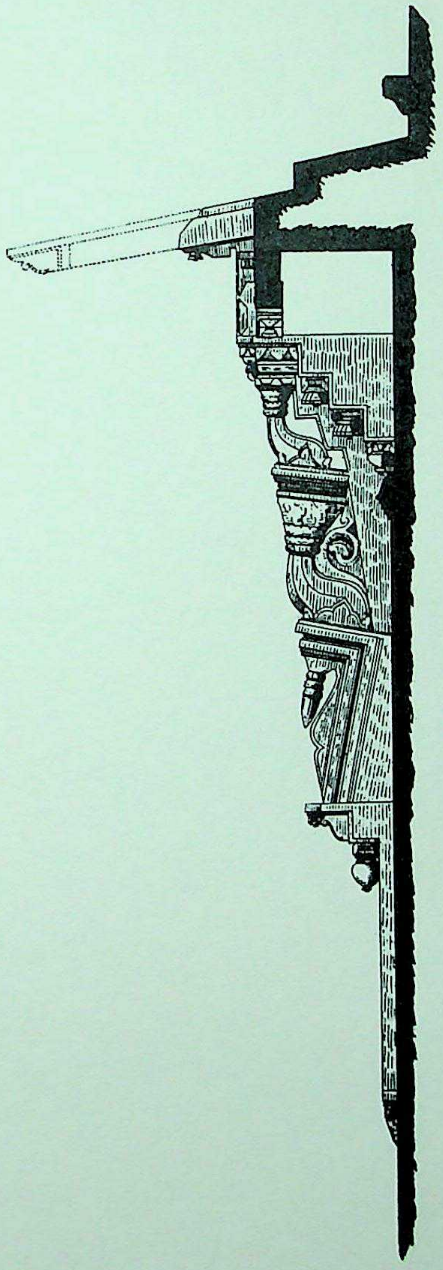
PLATE VIII.

BRACKETS FROM THE NAVA-GUMBAZ AND KUMBHAR MASJID AT BIJAPUR.

THE long bracket on this plate from the Nava-gumbāz, or Nine-domed Mosque, is peculiar in its design: the setting back of the right-angled moulding gives it an air of strength and rigidness. In the other, from the Kumbhār-Masjid—so called now from a potter occupying it for his work—is more elaborate, but the corbel on which it rests looks weak for the weight above it.

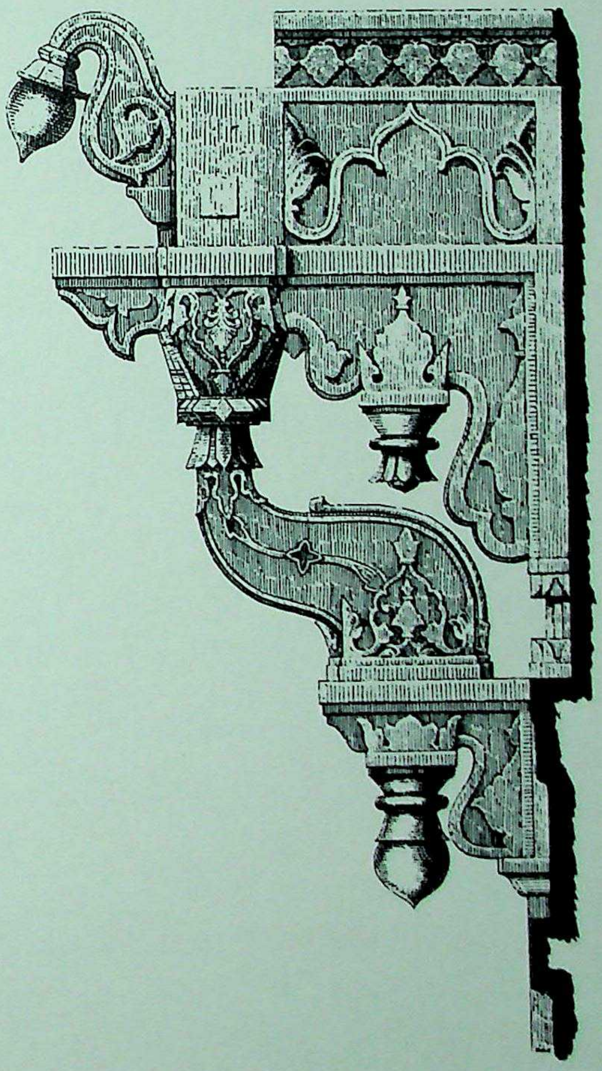
Govt. Archæol. Survey of Western India.

No. 853.



CORNICE BRACKET, NAVA GUMBAZ, BIJAPUR.

SCALE OF 12 — 1 2 3 4 5 FEET.



CORNICE BRACKET, KUMBAR MASJID, BIJAPUR.

SCALE OF 12" — 1 2 FEET

Photoetching

Survey of India Offices, Calcutta, June 1890.

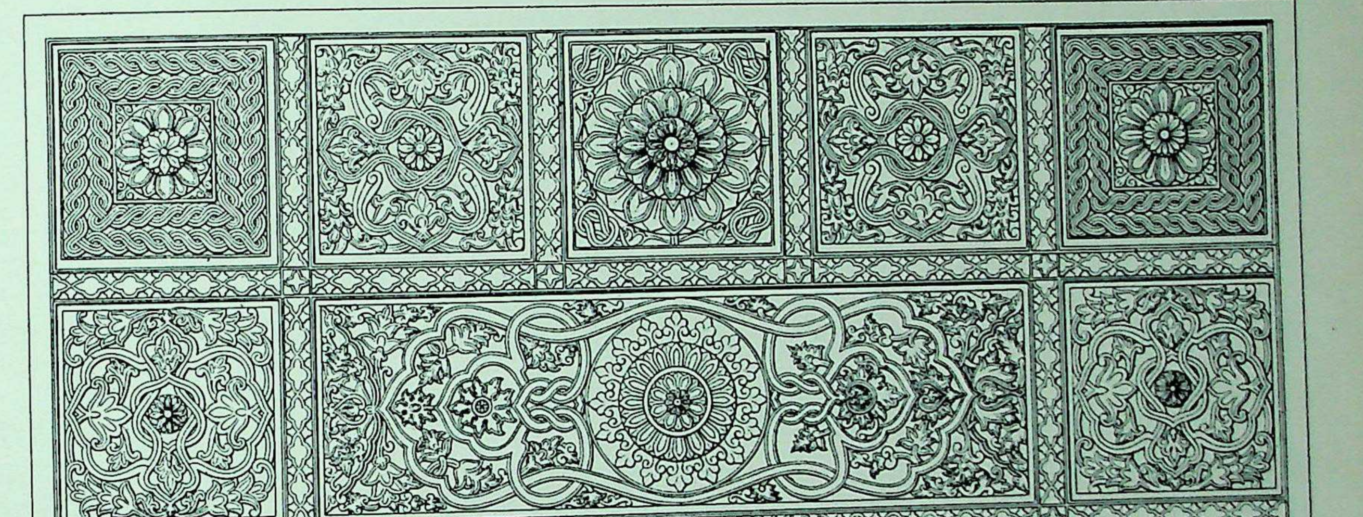
PLATE IX.

STONE CEILING PANELS FROM THE IBRAHIM RAUZA, BIJAPUR.

AN inspection of the tomb of Ibrahim II, at Bijapur, will convince any one of the care in execution and excellent finish of the mason-work. The panels in the plate represent a portion of the flat stone ceiling of the corridor round the tomb. The plain strip is the lower face of the supporting beam, extending from pillar to pillar, while beyond it the ceiling projects, and is decorated with a single row of carved panels sunk about half an inch below the level of the borders. Every panel is a separate study in decoration.

Govt. Archæol. Survey of Western India.

No. 866.



GEILING PANEL FROM THE IBRAHIM RAUZA. BIJAPUR.

SCALE OF 12" ∴ 1 2 3 4 5 6 7 8 9 10 FEET.

Survey of India Offices, Calcutta, June 1890.

Photo-etching

PLATE X.

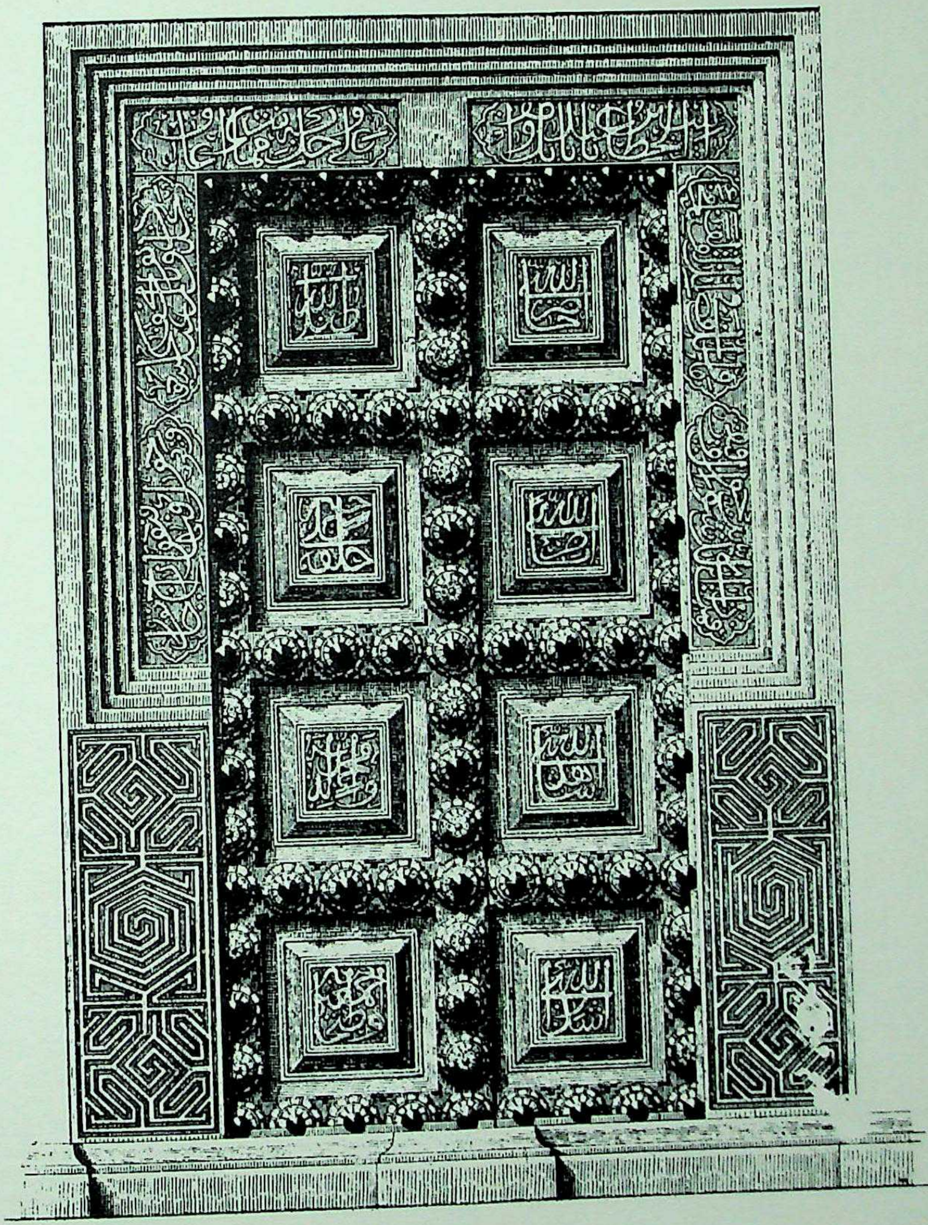
DOOR FROM THE IBRAHIM RAUZA-AT BIJAPUR.

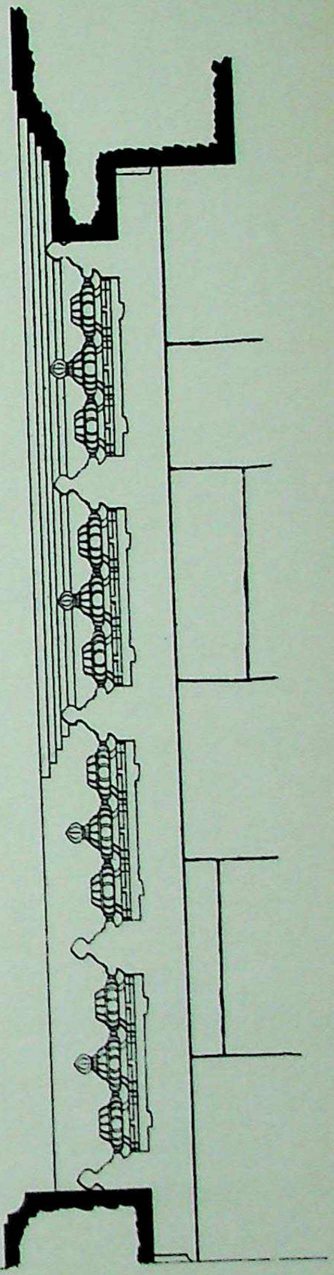
THIS door differs from that on Plate VI, though in type they are the same. In this the folding doors are properly framed and panelled. Along the styles and rails ornamental knobs are carved in high relief, as close together as practicable, and with iron studs or large nail-heads projecting from most of them: these were originally gilt. The raised areas of the bevelled panels are carved with Arabic sentences, in which the letters are interwoven into ornamental forms.

The jambs and lintel are of polished black basalt, and the lower halves of the jambs are carved with geometric patterns in low relief, while running round the upper part of the frame is a stepped moulding, and within it is a sentence from the Qoran.

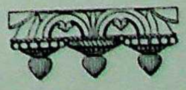
Govt. Archæol. Survey of Western India.
No. 872.

DOOR FROM THE IBRAHIM RAUZA BIJAPUR.

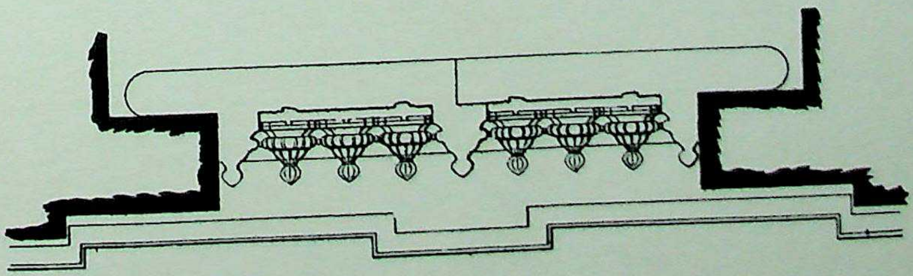




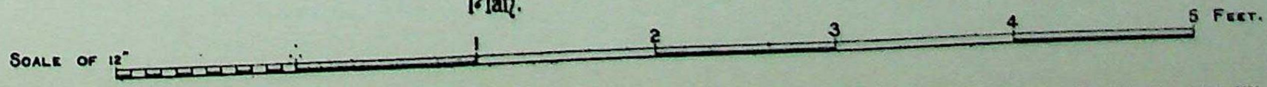
Section.



Detail of ornament.



Plan.



Survey of India Offices, Calcutta, June 1890.

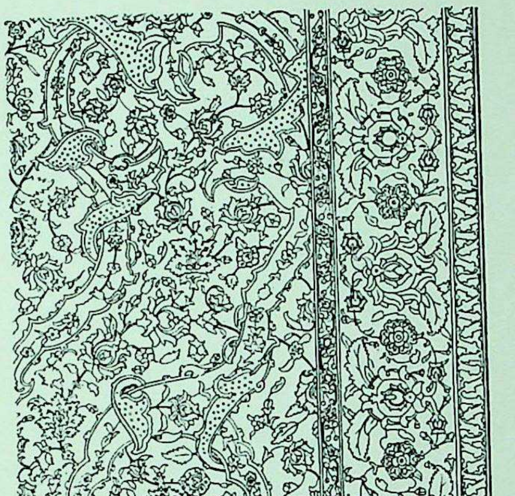
Photoetching

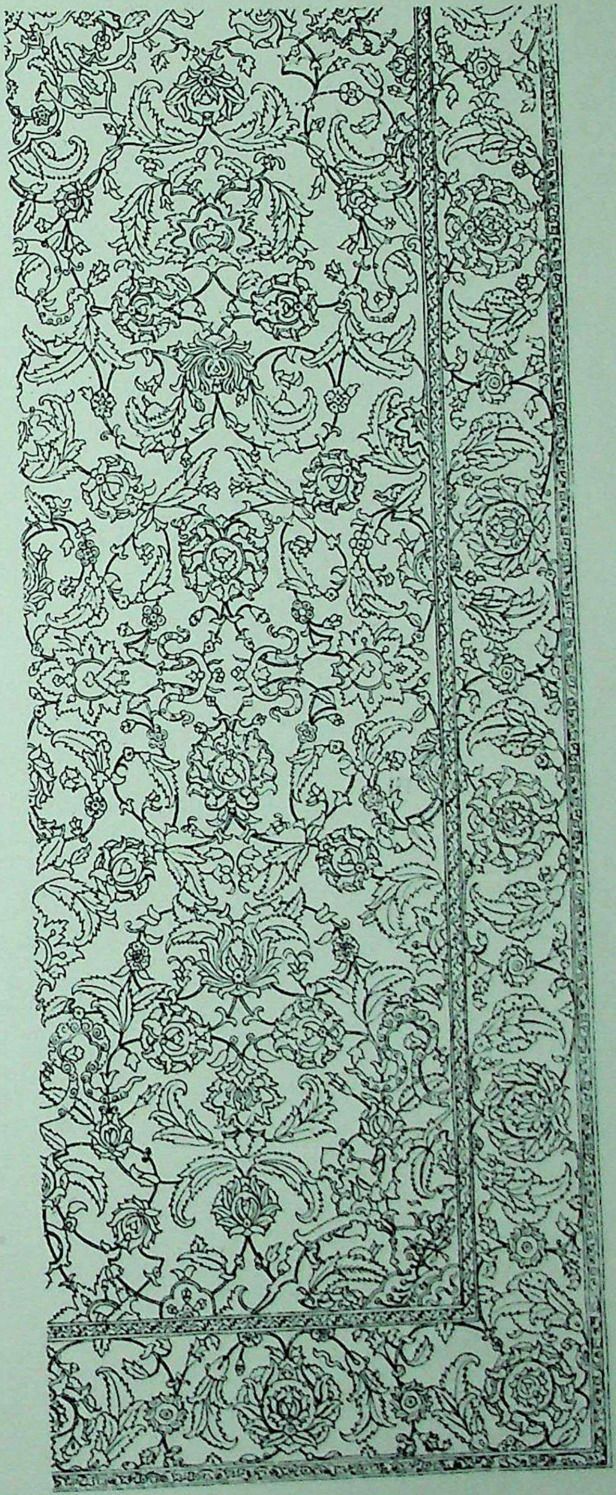
PLATE XI.

OLD PERSIAN CARPET DESIGNS.

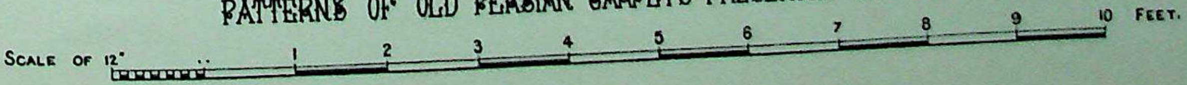
THIS plate represents quarter patterns of the designs on two of the old Persian carpets preserved at the 'Asar Mahāll. Though old and much worn, they retain their colours well. The one carpet measures 25 ft. 6 in. by 10 ft. 5 in., and the other 32 ft. 11 in. by 12 ft. 6 in. They have been badly used, and little care is taken of them by the Muhammadan custodians of the 'Asar Mahāll. Government now proposes to supply the custodians with others to take their place, and to preserve these carefully.

Govt. Archæol. Survey of Western India.
No. 876.





PATTERNS OF OLD PERSIAN CARPETS PRESERVED AT BIJAPUR.


SCALE OF 12"
1
2
3
4
5
6
7
8
9
10 FEET.

Survey of India Offices Calcutta June 1890

Photo-etching

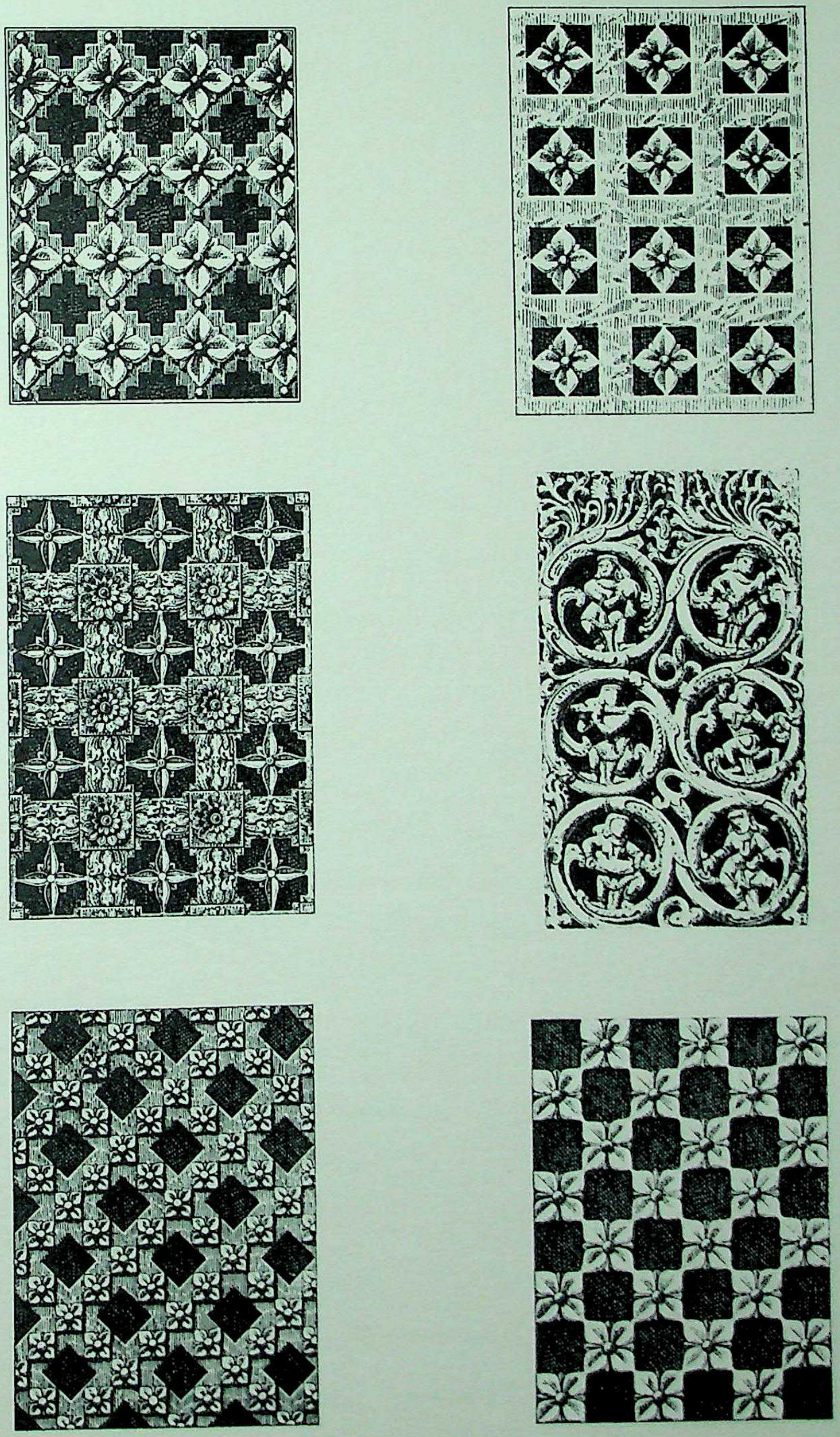
PLATE XII.

PERFORATED STONE SCREEN-WORK FROM CHALUKYAN TEMPLES.

THE six examples on this plate are from various Chalukyan temples in the south of the Bombay Presidency, dating from the 11th, 12th, and 13th centuries. They are not drawn to any fixed scale, for the squares of the patterns vary in the temples where they are used from 2 to 4 or 5 inches.

The two across the middle of the plate are both from an old temple of Brahma, now used as a Lingayat shrine, at the village of Unakal in the Hubli taluka of the Dhārwâd Collectorate. The fifth example is from a temple at Naregal, also in the Dhārwād district, where it occurs in a screen between the central hall and two long side shrines. The others are common patterns occurring frequently.

Govt. Archæol. Survey of Western India.
No. 910.



PERFORATED STONE SCREEN WORK FROM CHALUKYAN TEMPLES.

Photo-etching

Survey of India Offices, Calcutta, June 1890.

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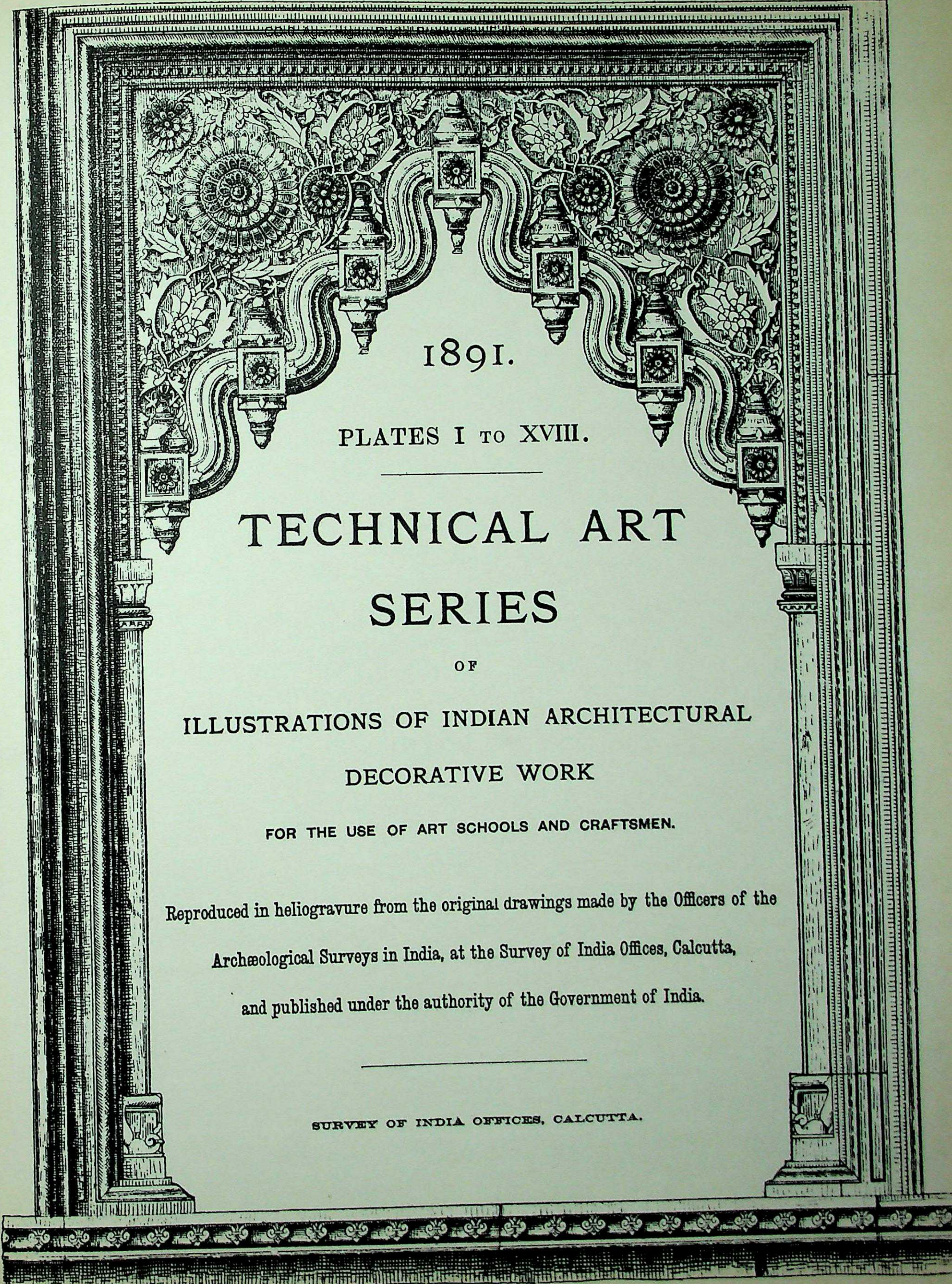


1891.

PLATES I TO XVIII.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the
Archæological Surveys in India, at the Survey of India Offices, Calcutta,
and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

I to IV.—Ornaments from the Temple of Vîrabhadra, Anantapur District, Madras Presidency.

V.—Teakwood Piers from the Temple of Mailâralingappa, Bellary District, Madras Presidency.

VI.—Châlukyan Ceiling from the Temple of Kattesvara, Bellary District. Madras Presidency.

VII & VIII.—Ornament from the Chaurasi Gumbaz, Kalpi.

IX.—Doorway, East Entrance, Temple of Chaturbhuj, Orchha, Bundelkhund.

X.—Bracket from Sultana's House, Fatehpur Sikri.

XI.—Dado Panel from the Sultana's House, Fatehpur Sikri.

XII.—Soffit of Drip Stone, Sultana's House, Fatehpur Sikri.

XIII.—Internal Frieze and Cornice, and External Cornice, South Facade, Sultana's House, Fatehpur Sikri.

XIV.—Ornament from the Turkish Sultana's House, Fatehpur Sikri.

XV.—Verandah Ceiling from the Sultana's House, and Jali Windows from the "Ankh Machaoli," Fatehpur Sikri.

XVI.—Wall Surface Decoration in the Tomb of Shah Karim, Bijapur.

XVII.—Façade Arch in the Chhota 'Asar Mosque, Bijapur.

XVIII.—Wood-work Window in the 'Asar Mahal, Bijapur.

NOTES ON PLATES

FOR

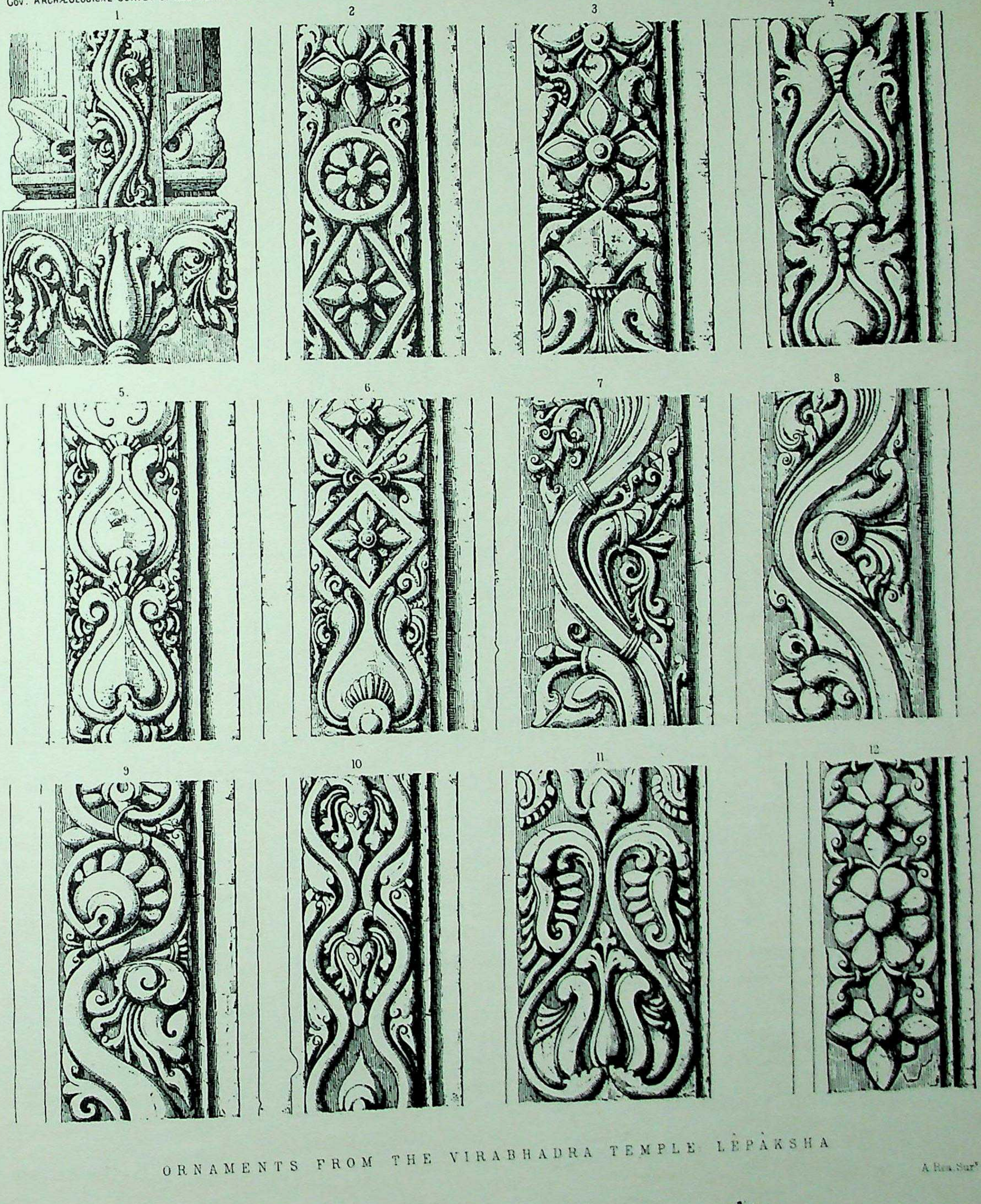
THE TECHNICAL ART SERIES (MADRAS), 1891.

PLATES I to IV.

THESE ornaments are from the temple of Vîrabhadra at Lêpâksha in the Anantapur District of the Madras Presidency. The temple is a large one, enclosed in several courts. It dates from the end of the 15th century. In the outer court is an extensive maṇḍapa studded with rows of granite piers, on which these ornaments are carved. These piers belong to the Vijayanagar period of Dravidian architecture, and though a general design is visible in all, each one is worked with a different ornament. The plan of the pier is either square or polygonal, with a raised panel on the four faces, running up the shaft from base to capital, on which the ornament is carved. A pier that shews the adaptation of the designs, and is similar in other respects to these, is that in figure 3, plate V of this series.

The designs shew great variety of form. The most usual feature in Dravidian carving is the running scroll, and various varieties of it are represented here. Some of these have the simple curving stem, others are interlaced or plaited, and some combine this with birds, diapers or other features. In other cases the stem is intertwined after the form of the links of a chain. Other features introduced are rows of diapers, and square and circular pateras. The lower body of each pier is a square, with mouldings connecting it with the shaft similar to those shewn in figure 1, plate I. On this portion, square or circular panels are usually introduced. These are often filled in with representations of snakes coiled and twisted around each other in intricate designs. Examples of these are given in figure 11, plate II, and figure 10, plate IV.

GOVT. ARCHÆOLOGICAL SURVEY OF SOUTHERN INDIA.


1.
2
3
4
5.
6.
7
8
9
10
11
12

ORNAMENTS FROM THE VIRABHADRA TEMPLE LĖPȦKSHA

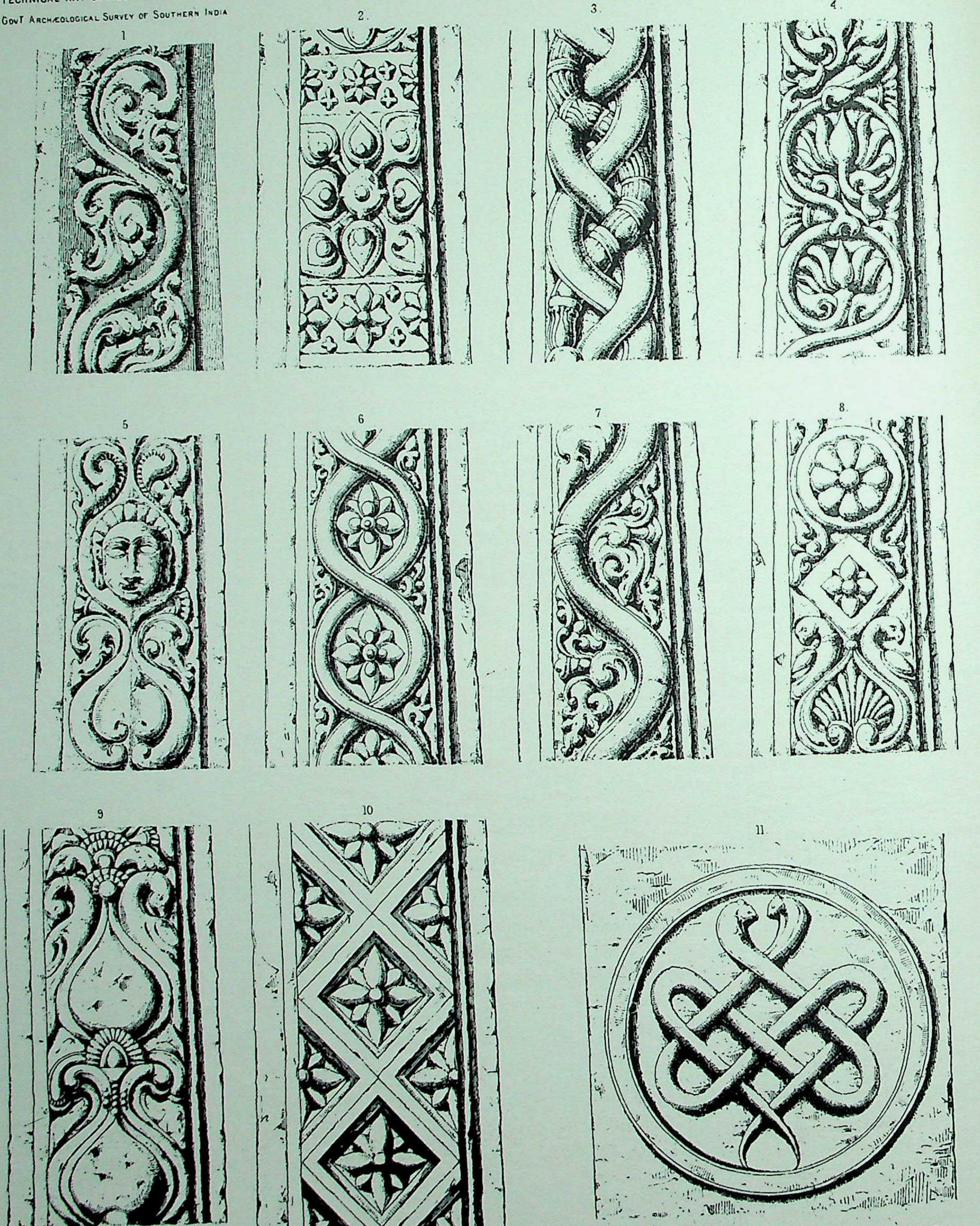
A. Rea. Sur^r.

Inches
12
9
6
3
0
1
2
Feet

Survey of India Offices Calcutta April 1891

TECHNICAL ART SERIES - 1891.

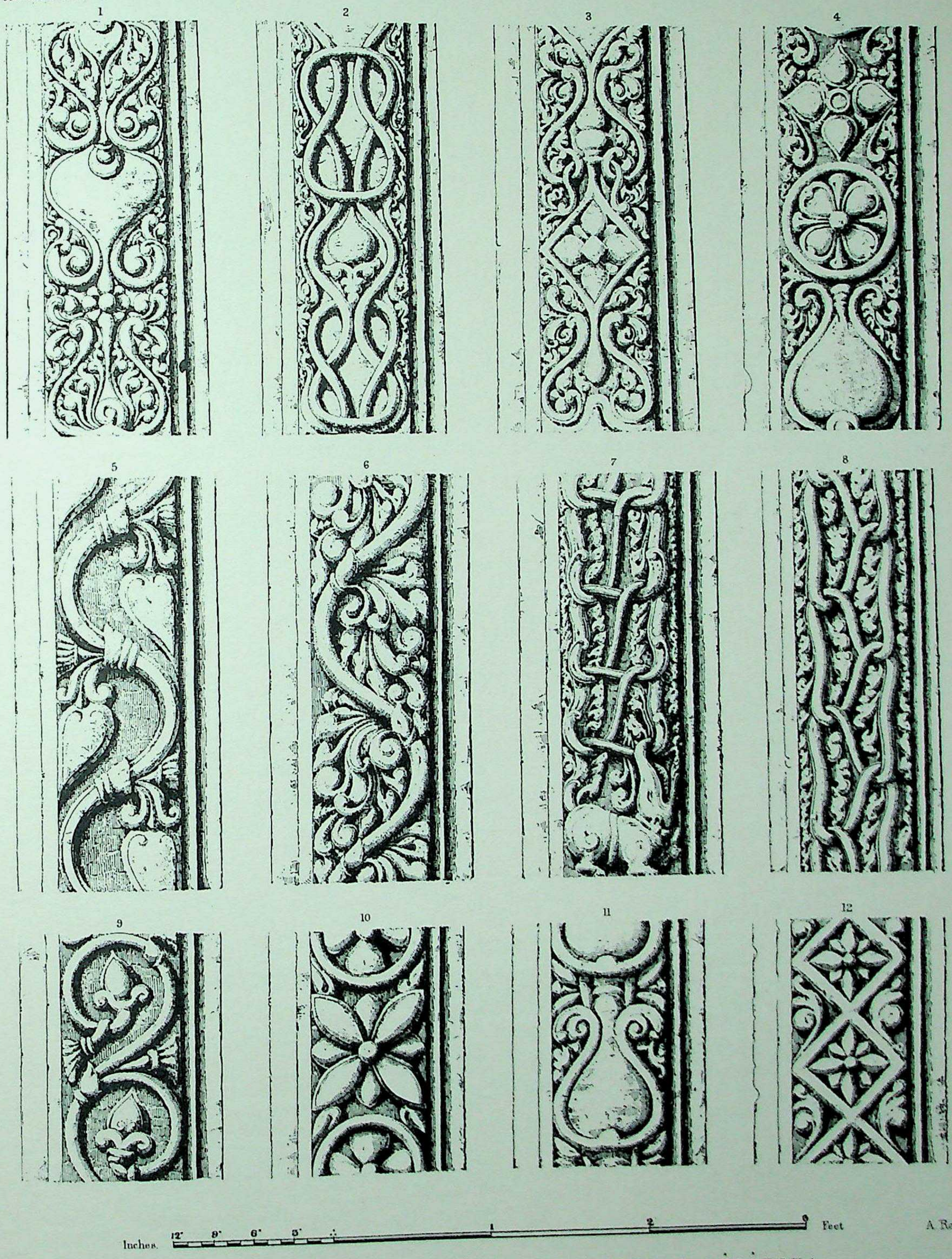
GOVT ARCHÆOLOGICAL SURVEY OF SOUTHERN INDIA


1
2.
3.
4.
5
6
7
8.
9
10
11.
1" 2" 3" 4" 5" 6" 7" 8" 9" 10" 11" 12" Inches.
Inches 12" 9" 6" 3" 1' 2' 3 Feet.

A Rea Sur^v

ORNAMENTS FROM THE VIRABHADRA TEMPLE LEPAKSHA

Survey of India Offices, Calcutta, May 1891.

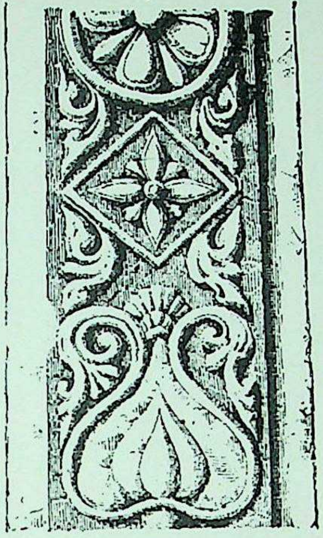

1
2
3
4
5
6
7
8
9
10
11
12
Inches.
12"
9"
6"
3"
1
2
3
Feet

A. Rea Surr.

ORNAMENTS FROM THE VİRABHADRA TEMPLE LĖPȦKSHA

Survey of India Offices, Calcutta, May 1891.

1.



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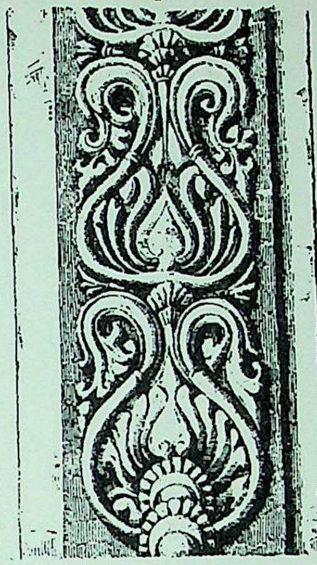

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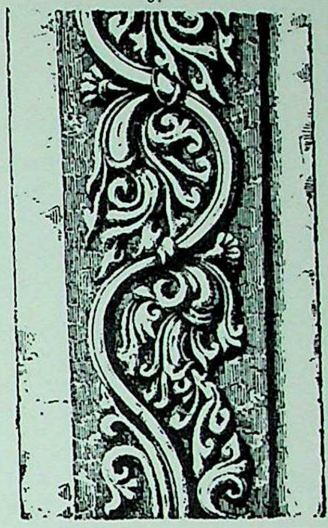
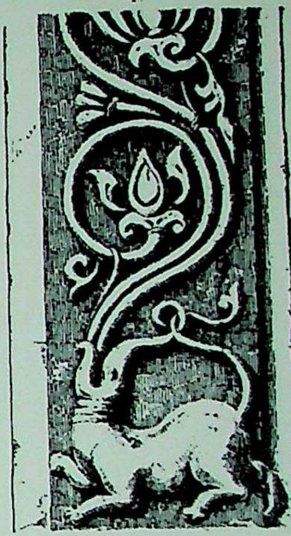
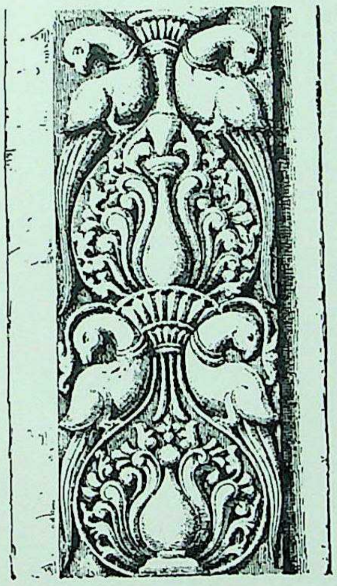


4.



5.



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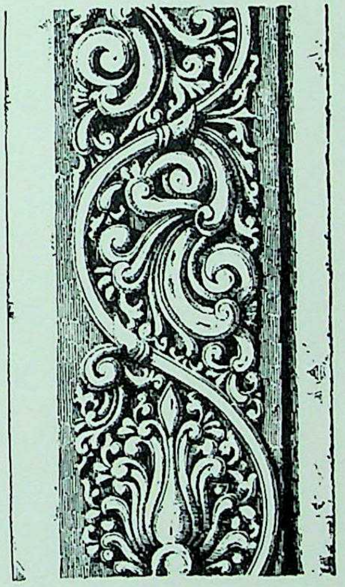

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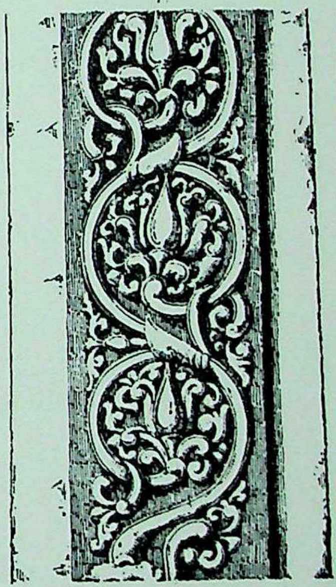

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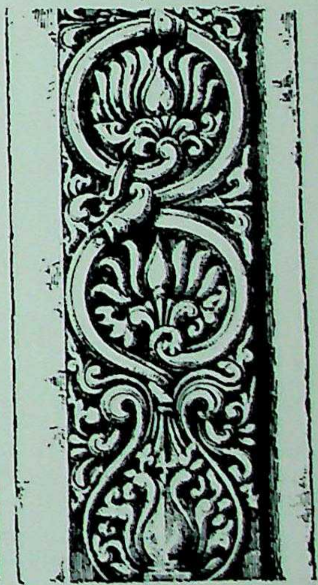
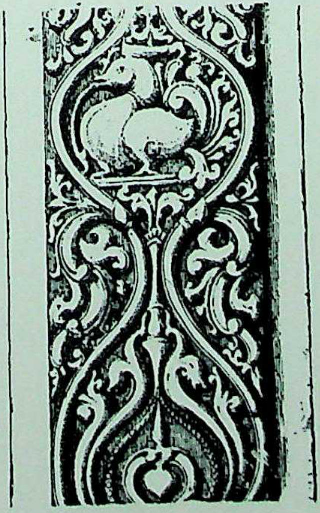


9.



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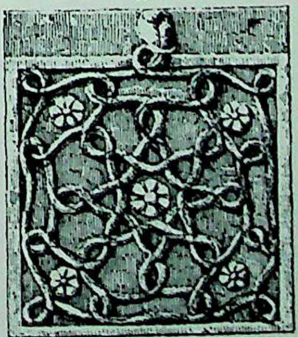
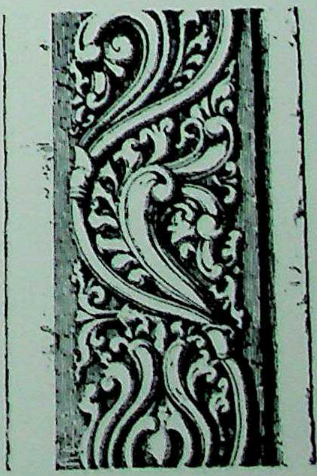


11.



Inches
12
9
6
3
1
2
3
Feet

ORNAMENTS FROM THE VIRABHADRA TEMPLE LEPAKSHA

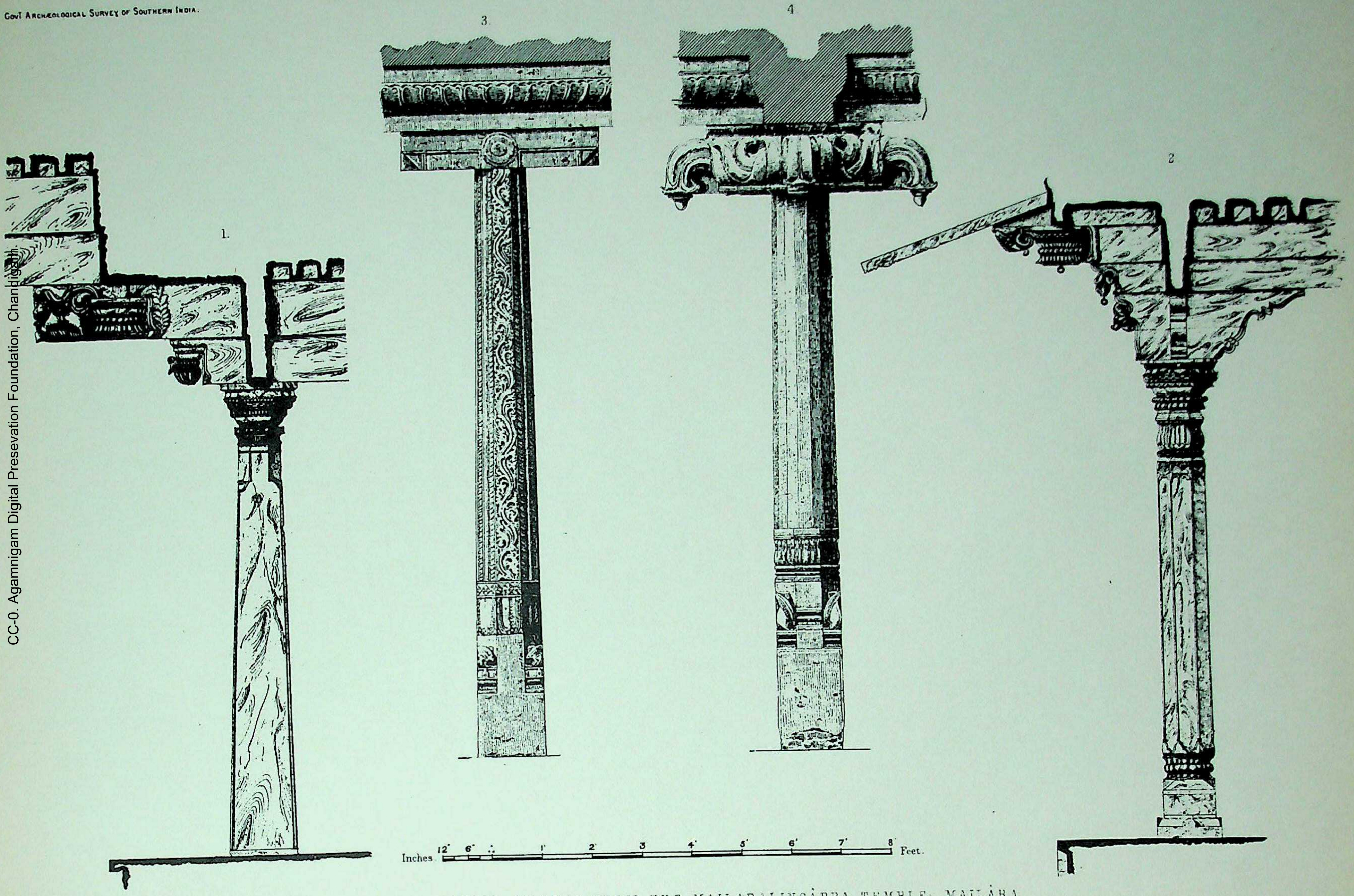
PLATE V.

Figs. 1 and 2.—These two examples of teakwood piers are from the temple of Mailâraliñgappa at Mailâra in the Bellary District. The temple is considered an impoitant one from a religious point of view, but architecturally it does not present many unusual features. The piers stand in an outer maṇḍapa. They are comparatively late work, dating from after the 17th century.

Figs. 3 and 4.—These are examples of stone piers from the large and important temple of Mârgasahâyar at Viriñjipuram in the North Aroot District. The temple is enclosed in several courts. The principal inner shrine has the unusual feature of being semi-circular in plan, and is the work of the Chôḷas of the 11th century. The outer courts were built during the Vijayanagar period, or from the end of the 15th century. To that date these piers belong. They represent two varieties of a class of pier usual in this style of architecture. The shaft is often square or octagonal, with a scroll ornament on the four principal faces. Great variety is often shewn in its treatment. The base is square with an intermediate series of mouldings connecting it with the shaft. The capital is represented by a short beam or cantilever, forming a bracket on two sides as in figure 3, or, when placed at the intersection of two ceiling beams, four brackets with overhanging drops, as in figure 4.

TECHNICAL ART SERIES 1891.

Gov^t Archæological Survey of Southern India.



3.
4.
1.
2
Inches
12'
6'
1'
2'
3
4'
5'
6'
7'
8'
Feet.

1 and 2 WOODEN PILLARS FROM THE MAILARALINGÀPPA TEMPLE. MAILÀRA

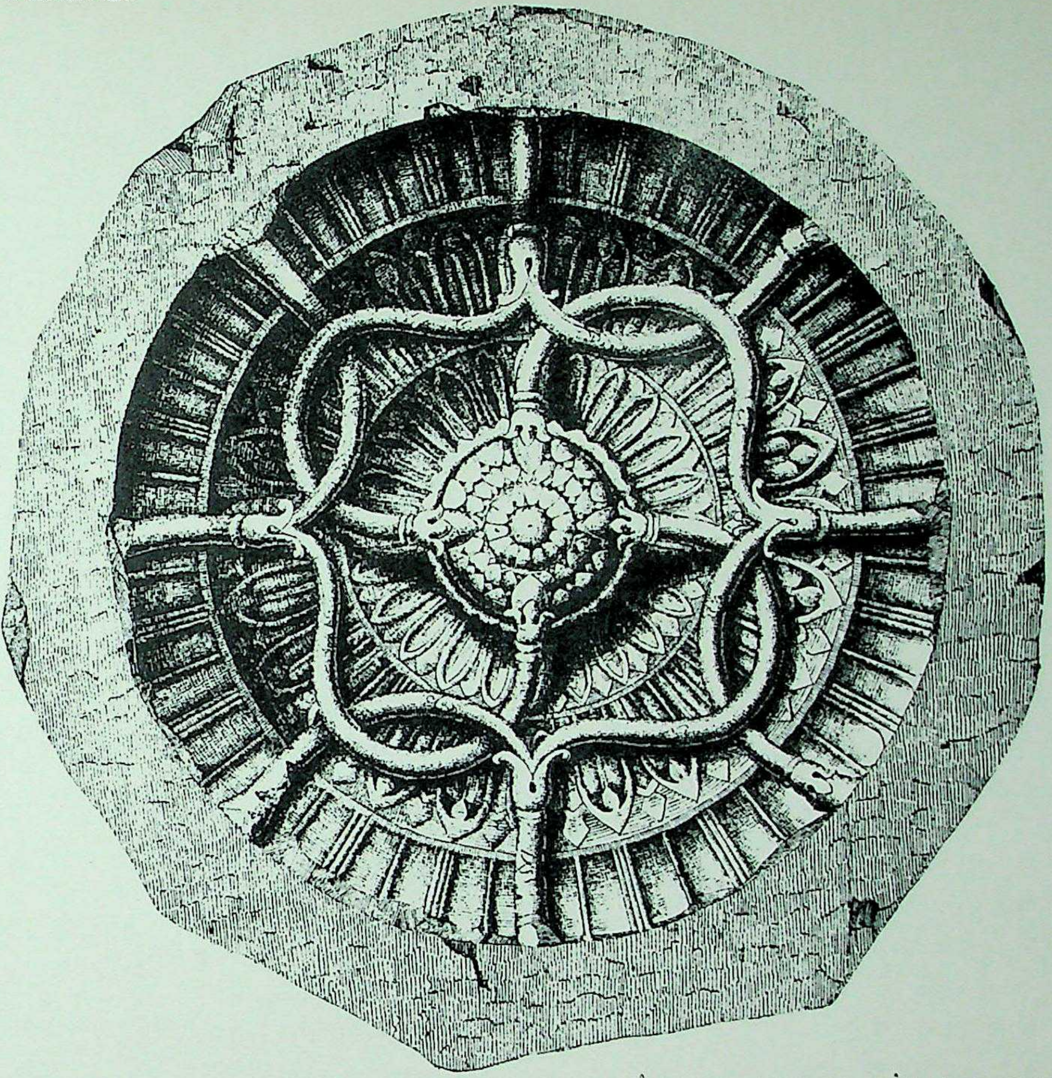
3 and 4. STONE PIERS FROM THE MÀRGASAHÀYAR TEMPLE VIRIÑJIPURAM.

PLATE VI.

Fig. 1.—This is a specimen of a 13th century Châlukyan ceiling from the temple of Kattêśvara at Hîrahadagalli in the Bellary District. The temple is a small one, built entirely of black stone, and covered with most minutely carved ornament, in some parts almost as fine as jewellery or work in ivory. Unfortunately, it is partly ruined, and a large open pillared maṇḍapa, which had stood in front, has now only the foundations remaining. This ceiling has evidently formed part of the roof of this maṇḍapa, as it was lying covered by earth near the foundations. These ceilings are usually in the form of a flat dome constructed of regular courses of blocks, or huge slabs cut into large rings and placed on each other, the whole being crowned by a large slab. There is reason to believe that this example does not represent the complete ceiling, but only the crowning member. These are often cut in most elaborate designs. In the present instance the entertwining stems are almost entirely detached from the hollow surface of the ceiling, being only connected at a few points. The concentric circles of leaf ornament are worked in flat relief on the surface. In the centre is a drop ornament cut in the form of a lotus bud. Occasionally these centre drops are suspended several feet from the crown and formed out of a separate block let through the centre.

Figs. 2 to 4 are two banners and an umbrella in beaten silver, on an image in the temple of Mallêśvara at Kuruvatti, in the Bellary District. They are the work of the present century.

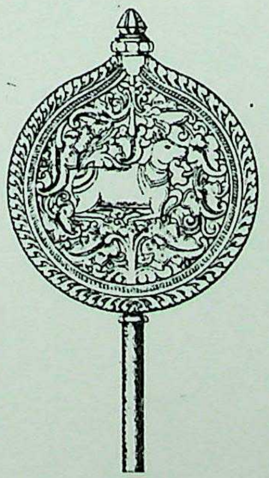
1.



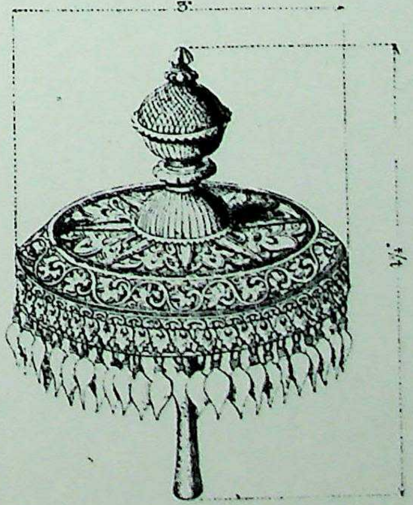
PLAN OF A CARVED STONE CEILING FROM KATTÊSVARA TEMPLE HÎRAHADAGALLI.

Inches
12
9
6
3
1
Foot

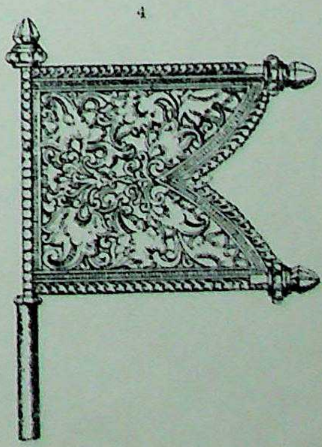
2



3.



4



SILVER ORNAMENTS ON A BRASS IMAGE OF ŚIVA, FROM THE MALLÊSVARA TEMPLE KURUVATTI

0
1
2
3
4
5
6
Inches

FATHPUR SIKRI is some twenty-three miles west of Agra, and was erected by Akbar during 1570-1606 A. D. The style of Architecture employed is peculiar to Upper India and is the outcome of Hindu and Muhammadan talent. The city is built of red sandstone and the originals illustrated by this and the subsequent plates are worked in that material. The whole is now being surveyed by the Archæological Department and will be fully dealt with in a future report.

PLATE VII.

ORNAMENT FROM THE CHAURASI GUMBAZ, KALPI.

THE Chaurasi Gumbaz lies on the south of the main roadway leading from Kalpi, the principal town in the Jalaun District, towards Orai. It was erected as a mausoleum and contains several tombs, beneath one of which, so tradition says, lies Lodî Shâh Bâdshâh. It is of the Sikandar Lodî type, built of stone and faced with stucco.

The plate represents the string courses running around the walls of the square chamber beneath the principal dome in the centre of the building. They are divided into two portions, the one plain and the other ornamented, the latter being decorated with an interlacing semi-circular arcaded pattern, arabesque in design. Fig. III is the most elaborate and is rather overdone. Over the arcading is a horizontal band of undulating leaf carving. Fig. II is more open and plain, and unornamented at the top, but the ground is filled in with small raised rosettes. Fig. I is less elaborate than either of the others. In feeling the design is the same, but it is worked out differently, and stands on a perfectly plain field, enclosed by a narrow fillet slightly in advance of the ornament, and is enriched at the top by a well cut guilloche moulding.

TECHNICAL ART SERIES - 1891. PLATE VII.

GOVT. ARCHÆOLOGICAL SURVEY N. W. PROVINCES & OUDH. No. 127.

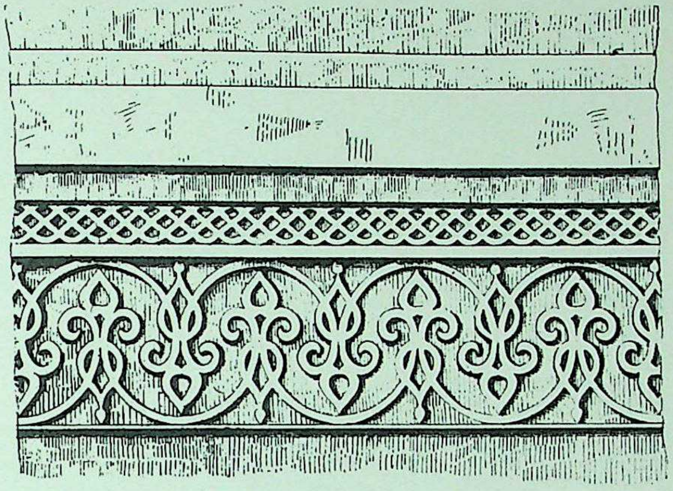


Fig. 1

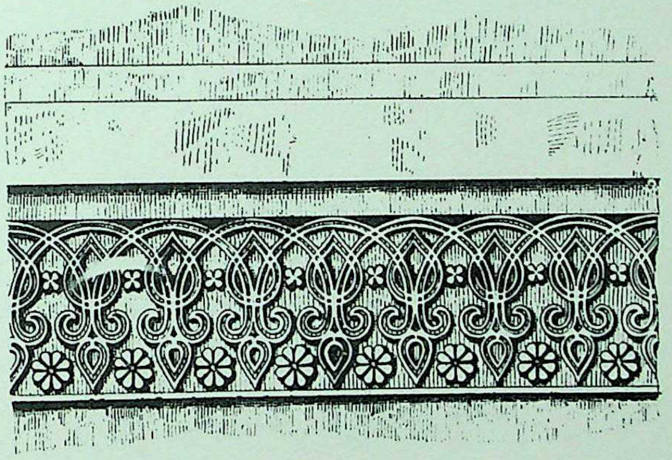


Fig. II

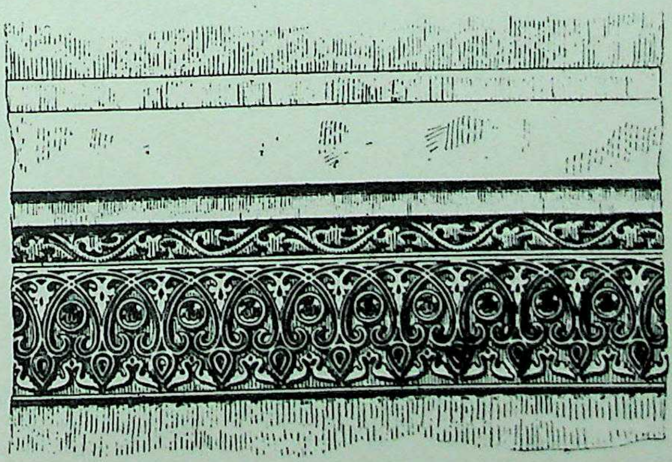
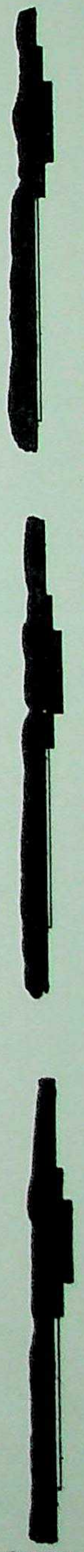


Fig. III



Sections

ORNAMENT FROM THE CHAURASI GUMBAZ, KALPI

Inches
12
9
6
3
0
1
2
Feet

Edmd W Smith, Archl Surveyor

Photo-etching

Survey of India Offices Calcutta, June 1891

PLATE VIII.

ORNAMENT FROM THE CHAURASI GUMBAZ, KALPI.

LIKE Plate VII this represents string courses from the Chaurasi Gumbaz, but in this case from the exterior of the bastion standing at the north-west angle of the building.

They are very intricate in design and on this account are quite unsuitable for purposes of external decoration. Fig. I is composed of three portions, the upper plain and outward curved ; the centre, of five courses projecting one above another ; whilst the lower is almost a reproduction of Fig. III, Plate VII. The upper part of the central portion is prettily carved with an interlacing fret and scroll on a background studded with small rosettes, &c., below which comes a plain course and beneath it a "dog-tooth" upon a paneled band filled in with lozenges. Fig. II is less elaborate, and ornamented at the top with a trefoil zig-zag pattern, below which is a concave member between two plain fillets. From this to the face of the wall the moulding is formed of a series of stepped courses, ornamented with circles connected by semi-circles, dog-tooth and leaf carving.

Govt. Archæological Survey N. W. Provinces & Oudh No. 128.

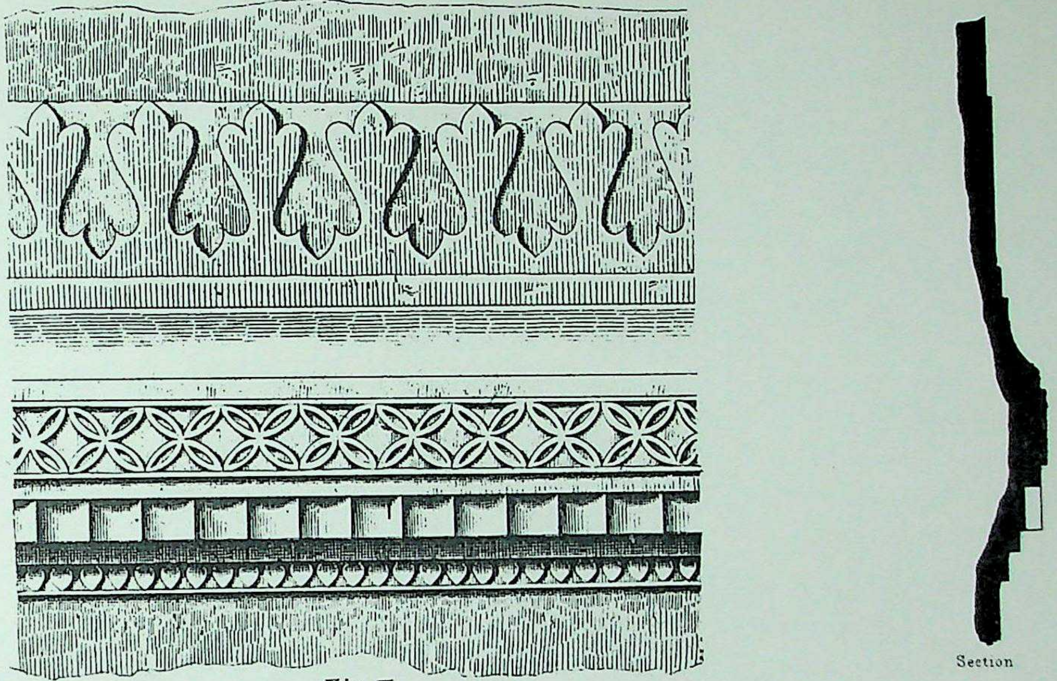


Fig. II

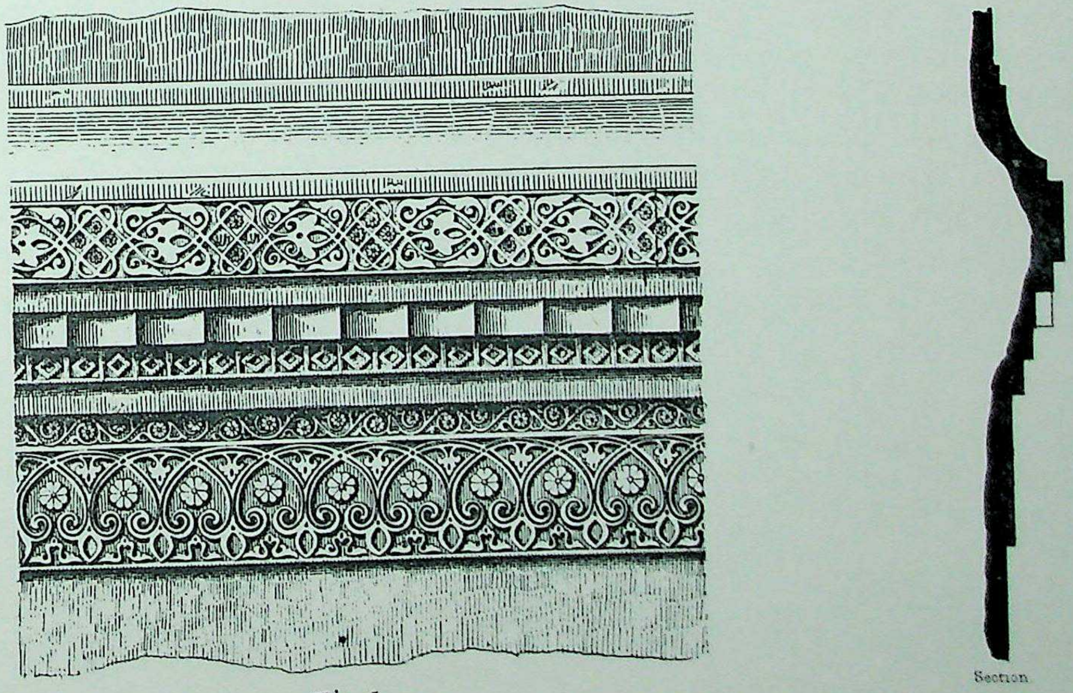


Fig. I

ORNAMENT FROM THE CHAURASI GUMBAZ, KALPI.

Edmd W Smith, Archl Surveyor

Inches
12
9
6
3
0
1
2
Feet

Photo-etching.

Survey of India Offices, Calcutta, June 1891

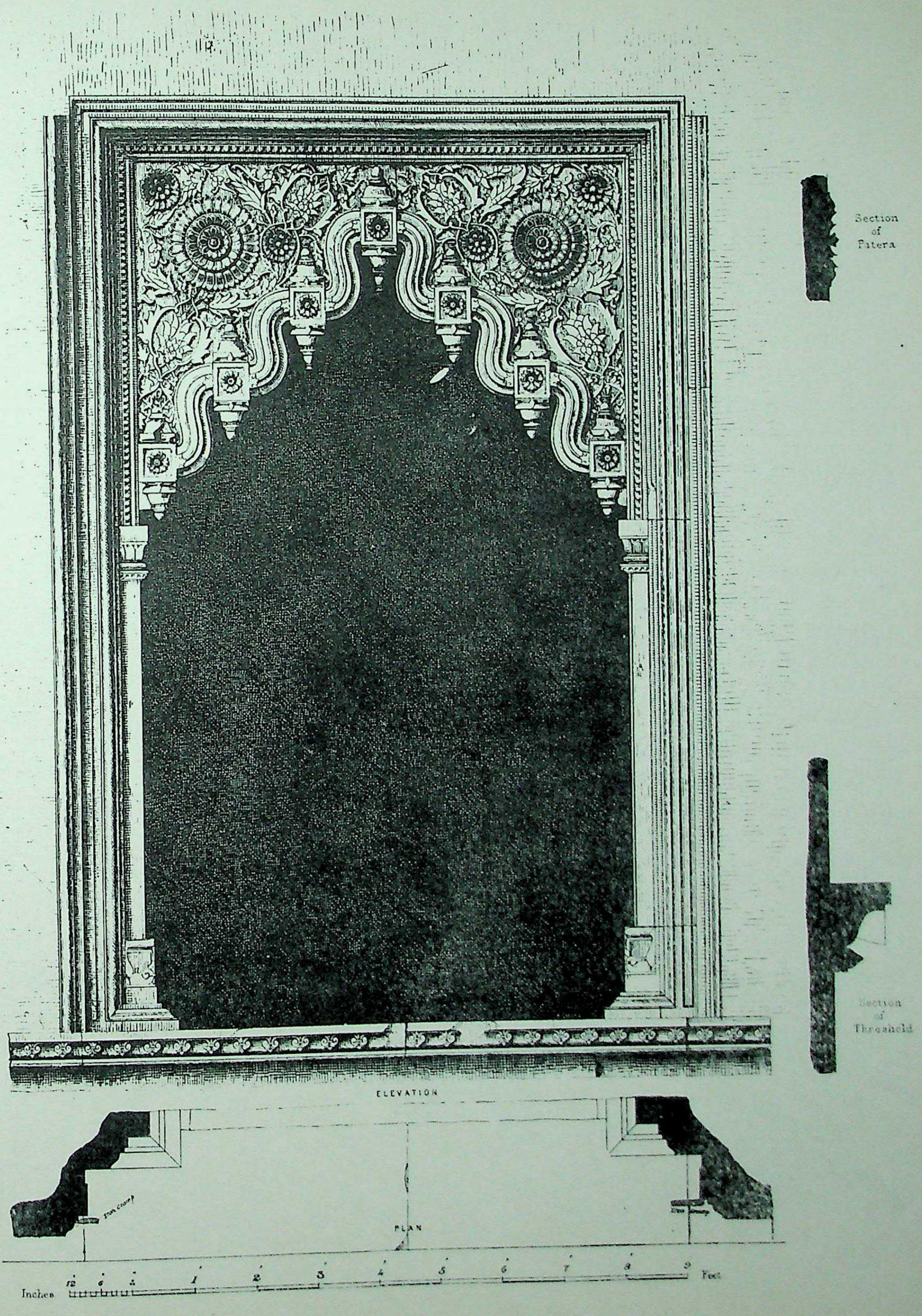
PLATE IX.

DOORWAY, EAST ENTRANCE, TEMPLE OF CHATURBHUJ, ORCHHA, BUNDELKHUND.

THE temple of Chaturbhuj was built by the famous Bîr Singh Dêo in the seventeenth century, and belongs to what may be termed the mixed Hindu-Muhammadan style of Upper India. It is notable on account of its close resemblance to many Christian churches and cathedrals, and is closely allied to the noted temple of Mandir Gôvind Dêo at Brindâban.

The principal entrance, illustrated on this plate, is on the east side, but it is probably not the original, as the masonry and workmanship is different to that employed in other parts of the building. In height it is 13′-6″ and is 7′-11″ wide. On each side is a double architrave of ogee mouldings. The inner one is complete and returns on the threshold and forms a plinth to the jambs, whilst the outer starts abruptly and terminates on a level with the lintel. The bases and caps of the jambs are moulded and carved with leaf ornament. The upper part of the entrance is filled in with richly-carved spandrils resting on moulded struts of stone, as used by the Hindus during the eleventh and twelfth centuries and to a great extent by the Jainas under their domes. In the centre of the spandrils are exquisitely-carved rosettes in bold relief having three concentric circles of leaves, the field around being enriched by raised conventional floral carving and rosettes.

GovT ARCHÆOLOGICAL SURVEY N.W. PROVINCES & OUDH. No 14P.


Section of Patera
Section of Threshold
ELEVATION
PLAN
Iron cramp
Iron cramp
Inches 12 6 4
1 2 3 4 5 6 7 8 9 Feet

DOORWAY EAST ENTRANCE TEMPLE OF CHATURBHUJ ORCHA

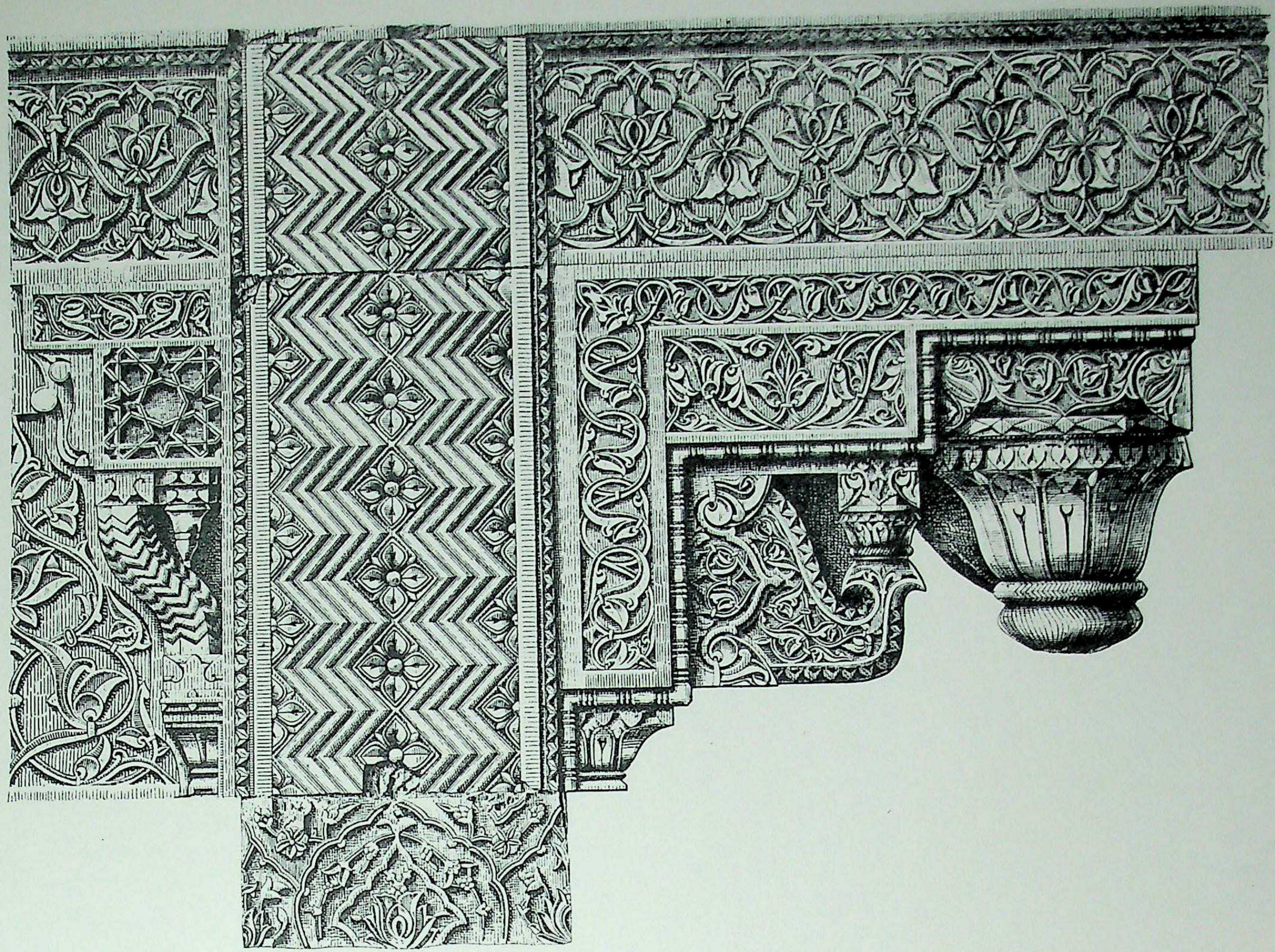
PLATE X.

BRACKET FROM SULTANA'S HOUSE, FATHPUR SIKRI.

PLATE X illustrates the style of bracketing used to support the stone lintels spanning the space between the verandah piers and carrying the roof, the soffit of which is seen on Plate XV. The abacus of the pendant is square and has carved volutes at the corners and in depth is of the same thickness as the lintel. Below, it is bell-shaped and leaf-carved and terminates in a twisted knob, the lower part of which in this case is wanting. To the left of the pendant are two small delicately-carved cantilever brackets which, like the abacus, have carved volutes at the corners. The face of the work over the brackets is scroll-carved, and above it comes the lintel, richly ornamented with a repeating trefoil pattern stopping against an oblong panel surmounting the cap of the pillar below, and carved with a zigzag pattern, reminding one somewhat of Norman ornament.

TECHNICAL ART SERIES – 1891.

GOVT. ARCHÆOLOGICAL SURVEY N. W. PROVINCES & OUDH. No. 207



Edmd W. Smith, Archl. Surveyor

BRACKET FROM THE SULTANA'S HOUSE – FUTEHPUR SIKRI.

Survey of India Offices, Calcutta, June 1891

Photo-etching.

PLATE XI–XIII.

DADO PANEL FROM THE SULTANA'S HOUSE, FATHPUR SIKRI.

FIGURE I of this plate is a reproduction of a dado panel in the Sultâna's house, and is taken from the north-east interior angle of the reception-room. In shape it is oblong and is richly ornamented with conventional carving, portraying flowering trees and shrubs, over the branches of which is some carving, Chinese in touch and feeling, which may be meant for flying dragons or clouds. The whole is enclosed in a rich stone frame, 6″ wide, chamfered on the sides and sunk in the middle, and carved with raised equilateral triangles and semi-hexagons. This is again enclosed by a broader border enriched by an elaborate repeating fret of moresque design on a background studded with rosettes. Over the dado is a rich stone lattice, extending to the ceiling and used as an almirah. Surmounting it is an exquisite frieze of arabesque carving (See Figure III, Plate XIII) crowned by a well-projecting cornice, ogee in form enriched by plain leaf carving and pendants linked together by fleur-de-lis.

Figures II, III, illustrate two jâli windows of geometric design from the "Ankh Machaoli."

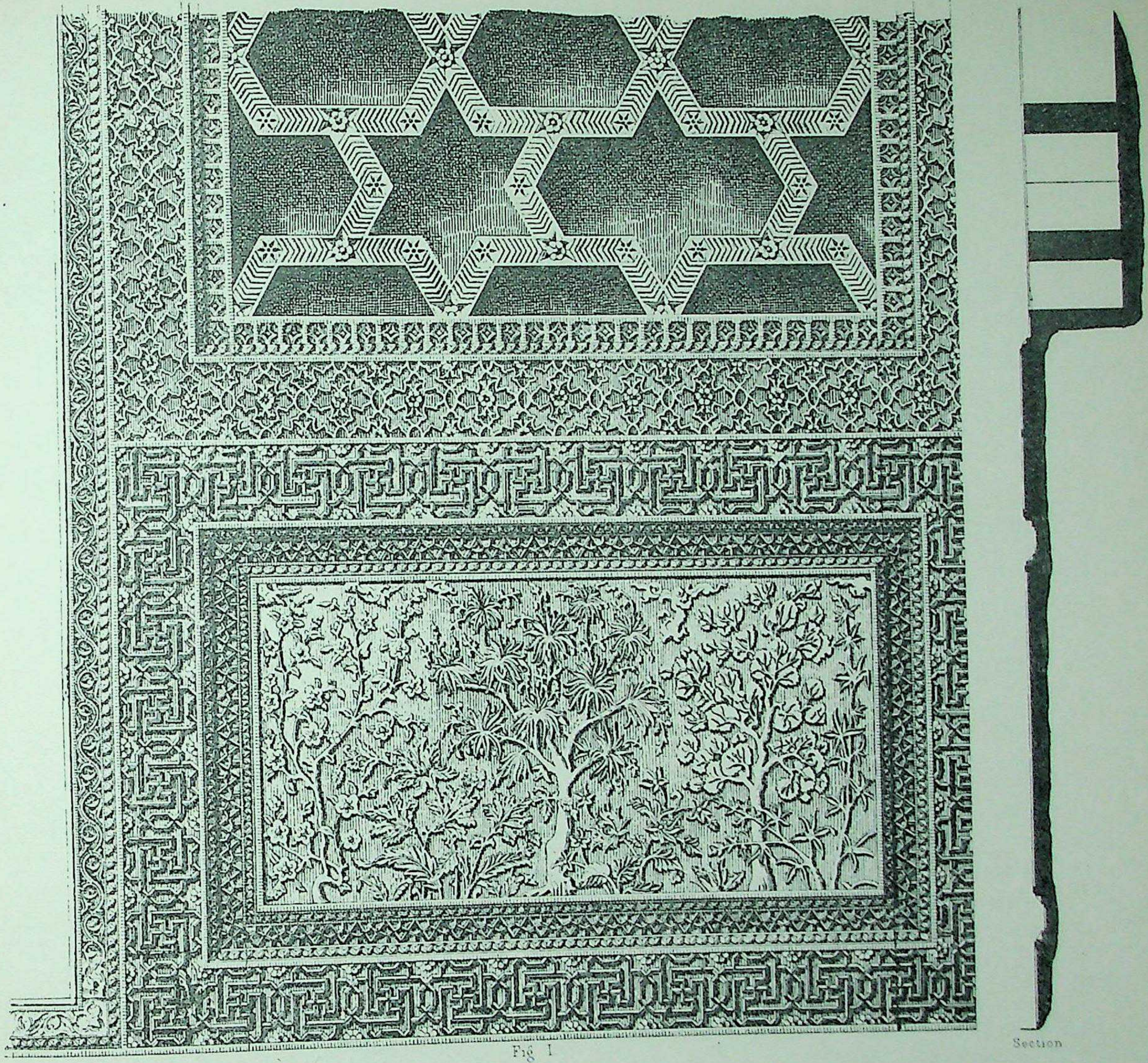


Fig I

DADO PANEL FROM SULTANAS HOUSE FATEHPUR SIKRI.

Inches 12 10 8 6 4 2 0 1 2 3 Feet

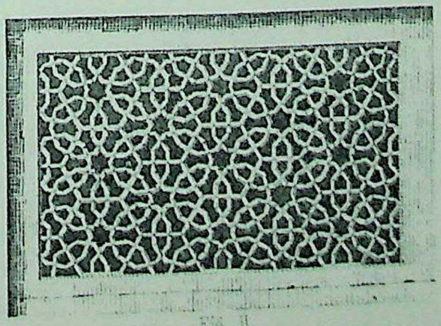


Fig II

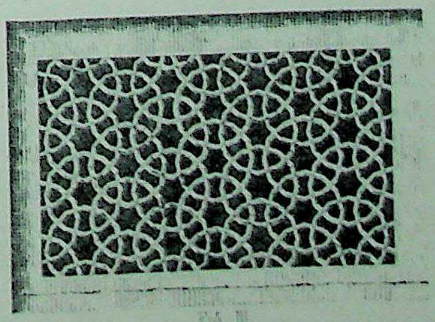


Fig III

JALI WORK FROM THE "ANK MACHAOLI" FATEHPUR SIKRI.

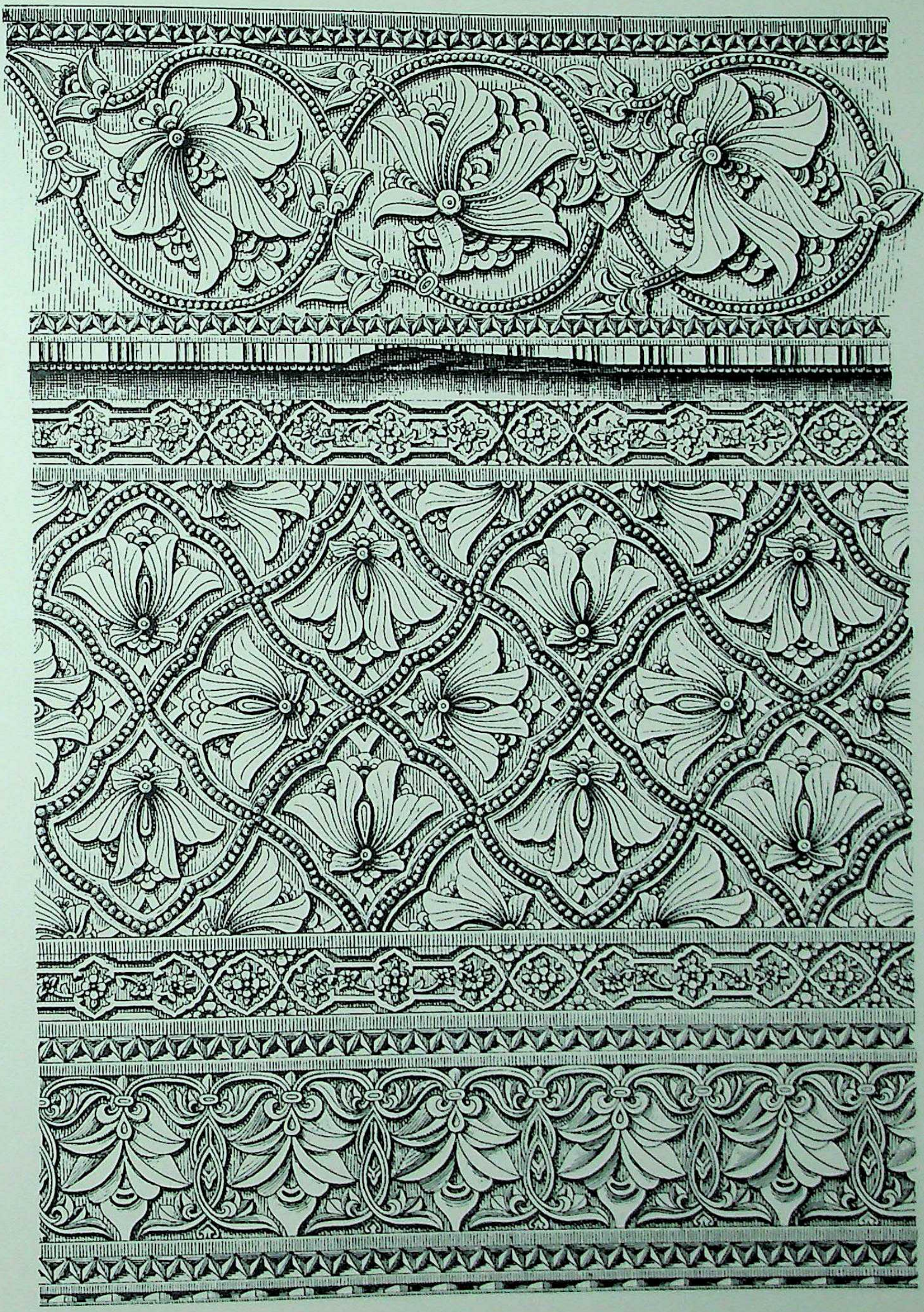
PLATE XII.

SOFFIT OF DRIP STONE, SULTANA'S HOUSE, FATHPUR SIKRI.

THE drip stone illustrated on this plate is of red sandstone and projects some 5′-4″ from the wall and protects the west verandah from the excessive rain of the monsoon and the fierce glare of the summer sun. It is made of thin wedge-shaped slabs of stone $2\frac{3}{4}$″ in thickness, cramped together and supported on a stone wall plate, shown on the upper part of the drawing, ornamented by a well cut floral scroll on a plain background. Beyond, the field is feather-ornamented on a background of floral carving, a device often met with in arabic and moresque designs, and similar to one which, according to Owen Jones, is found in the first instance on the Sassanian capitals at Bi-Sutoun.

Beyond are other bands of carving enclosed by a "dog-tooth" moulding, and at the exterior edge is the "drip," the front face of which is carved with facets.

Govᵀ Archæological Survey N. W. Provinces & Oudh. Nº 225



SOFFIT OF DRIPSTONE – SULTANAS HOUSE. FATEHPUR SIKRI.

Edmd W Smith, Archl Surveyor

12" 10" 8" 6" 4" 2" 0" 1' 2' 3'

Inches. Feet

Photo etching

Survey of India Offices, Calcutta, July [illegible]

PLATE XIII.

INTERNAL FRIEZE AND CORNICE, AND EXTERNAL CORNICE, SOUTH FAÇADE SULTANA'S HOUSE FATHPUR SIKRI.

FIGURE I of this plate illustrates the fasciæ on the north, south, and east sides of the verandah roof, which is constructed of stone slabs wrought in imitation of tiling. The top is scalloped leaf carved and pierced to allow the water to run off freely. Below is a flat ogee moulding enriched by projecting facets, and beneath, is a deep band, throated on the underside and ornamented with a raised interlaced arcading springing from semi-egg shaped pendants with leaves clustered around the top. Below the band and setting back some 1′-10″ from its face comes the lintel, an interior view of which is given on Plate X. It is divided into a series of geometrical panels, square and oblong in form, enriched by foliage carving.

Figure II represents the external frieze and cornice above the sloping roof of the verandah. The frieze is splendidly carved with a delicate and well cut floral scroll of exquisite proportions. The cornice projects somewhat in advance of this and is ogee in form and leaf ornamented, surmounted by a band of plain facets, over which is another band studded with small lozenges and incised pellets.

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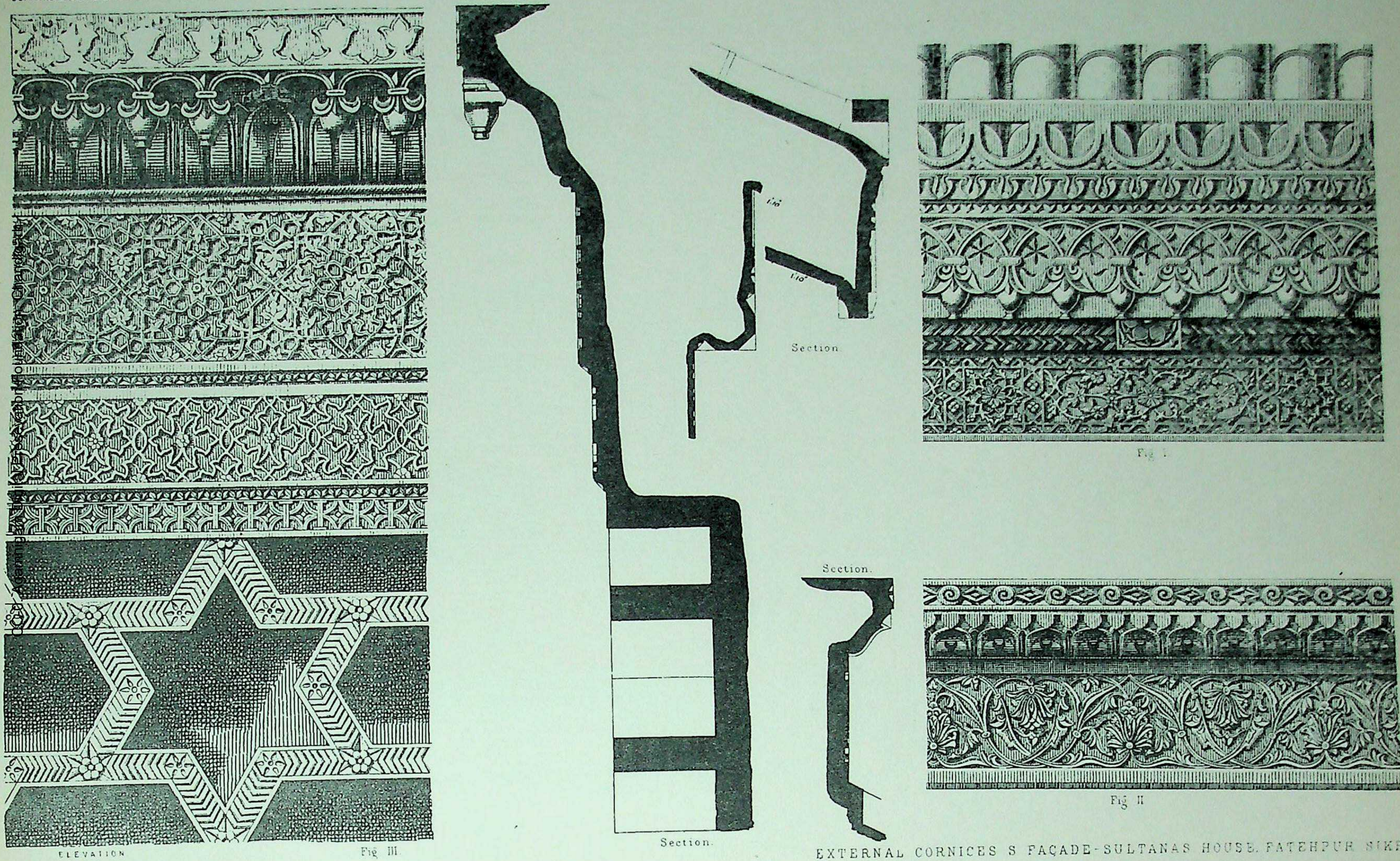
Gov.t Archæological Survey N. W. Provinces & Oudh No.s 226–227


1'10"
1'10"
Section.
Fig. I
Section.
Fig. II
Section.
ELEVATION
Fig. III

INTERNAL FRIEZE AND CORNICE-SULTANA'S HOUSE, FATEHPUR SIKRI.

Inches 12" 10" 8" 6" 4" 2" 0' 1' Feet.

EXTERNAL CORNICES S FAÇADE-SULTANAS HOUSE, FATEHPUR SIKRI.

Edmd. W. Smith Arch.t

Inches 12" 10" 8" 6" 4" 2" 0' 1 2' Feet.

PLATE XIV.

ORNAMENT FROM THE TURKISH SULTANA'S HOUSE, FATHPUR SIKRI.

PLATE XIV gives samples of the piers and pilasters on the exterior of the house. Fig. V is from the north-west angle of the building, and Fig. VI from the south west corner. The bases and caps are carved and are arabesque in feeling. The carving on the shaft of the pil ster is in basso-relievo and represents the pomegranate in different stages of development, and from the finish of the work it is evident it was executed by some master hand. It is enclosed by a narrow raised border ornamented on the outer side by a "tooth" moulding. Figs. I, II, illustrate the ornament on the east verandah pillars, whilst Figs. III, IV, give that on the north verandah piers. One is ornamented with a grape vine in full fruit, another with the vine intermixed with the pomegranate and melon, whilst the others exhibit a more rigid and severe type of ornament, geometric in form, interspersed with raised leaf carving and rosettes.

GOVT. ARCHÆOLOGICAL SURVEY N.W. PROVINCES & OUDH. Nos 228-229.

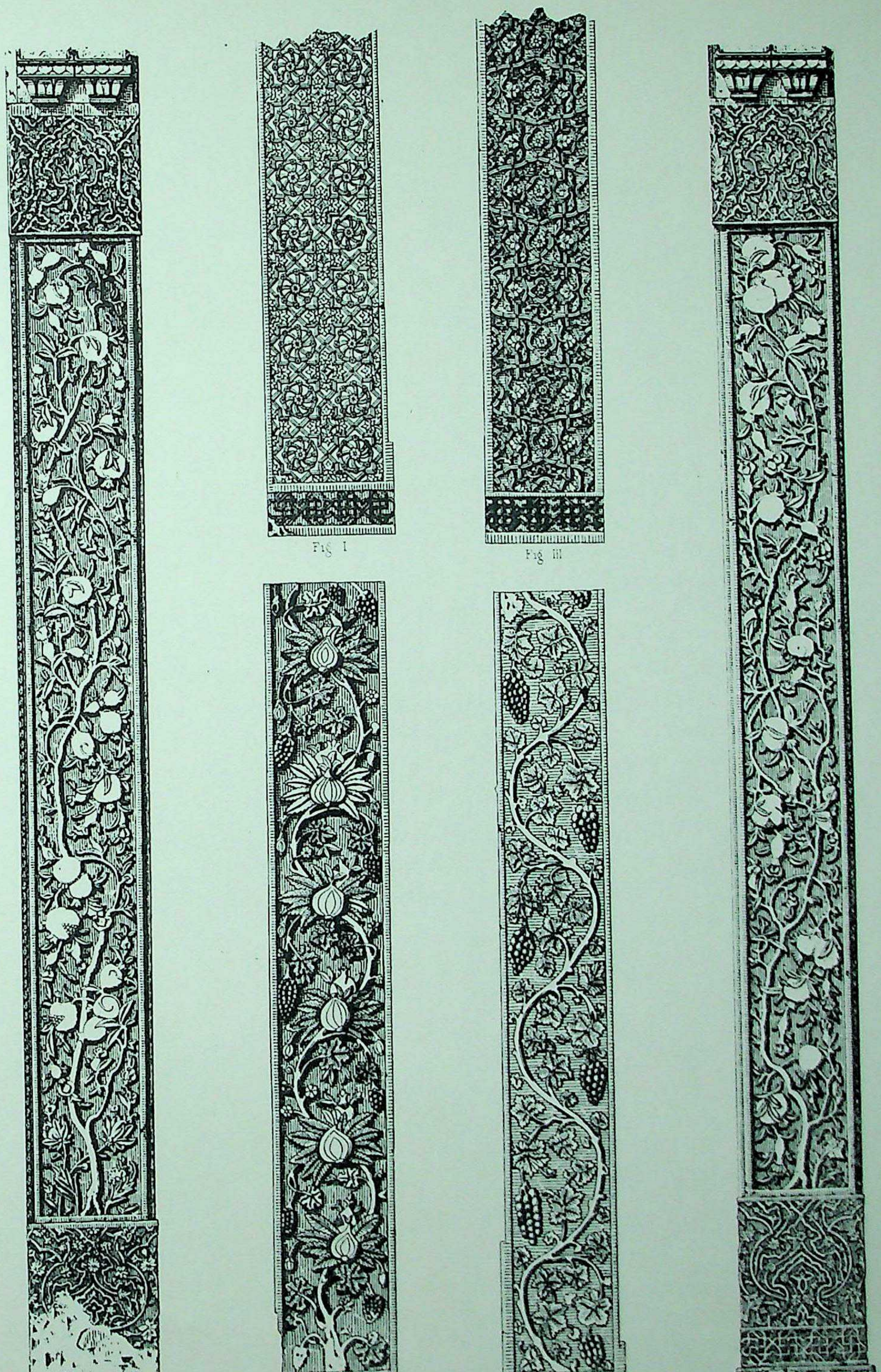


Fig V

Fig I

Fig II

Fig III

Fig IV

Fig VI

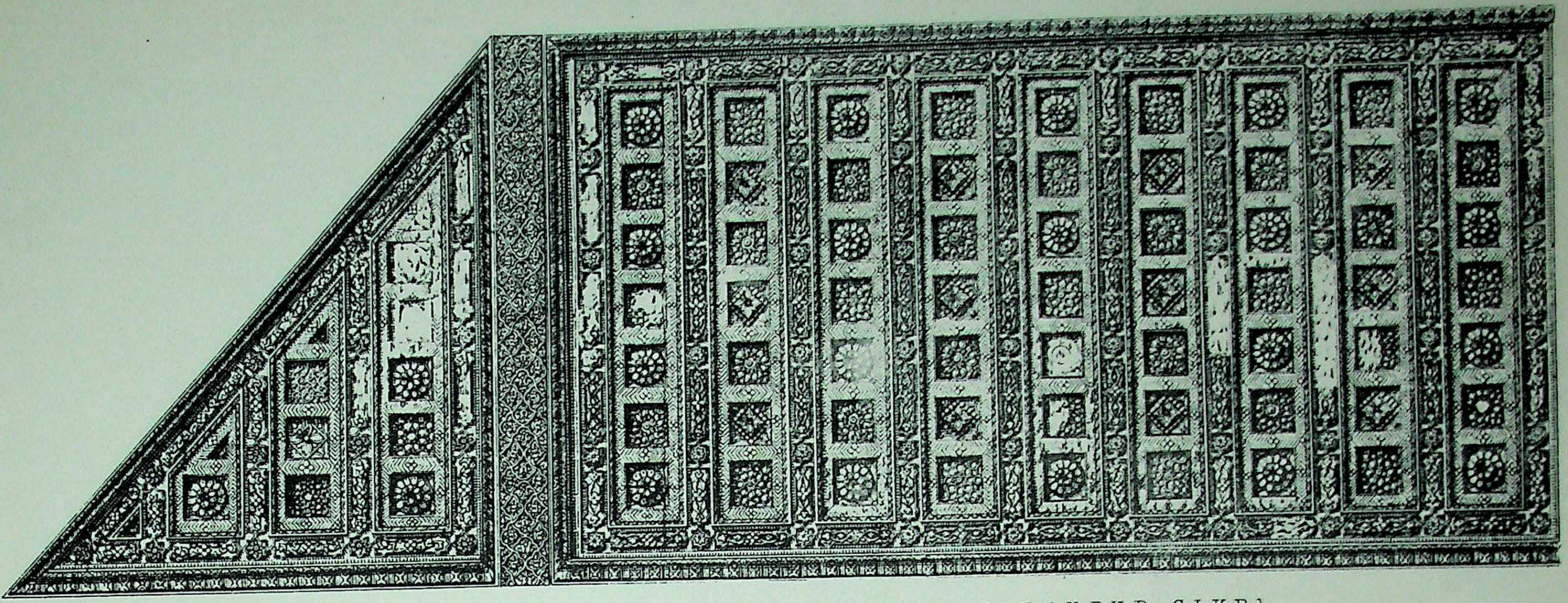
ORNAMENT FROM THE SULTANAS HOUSE, FATEHPUR SIKRI.

Inches 12 0 1 2 3 4 Feet

PLATE XV.

VERANDAH CEILING FROM THE SULTANA'S HOUSE, AND JÂLI WINDOWS FROM THE "ANKH MACHA-OLI," FATHPUR SIKRI.

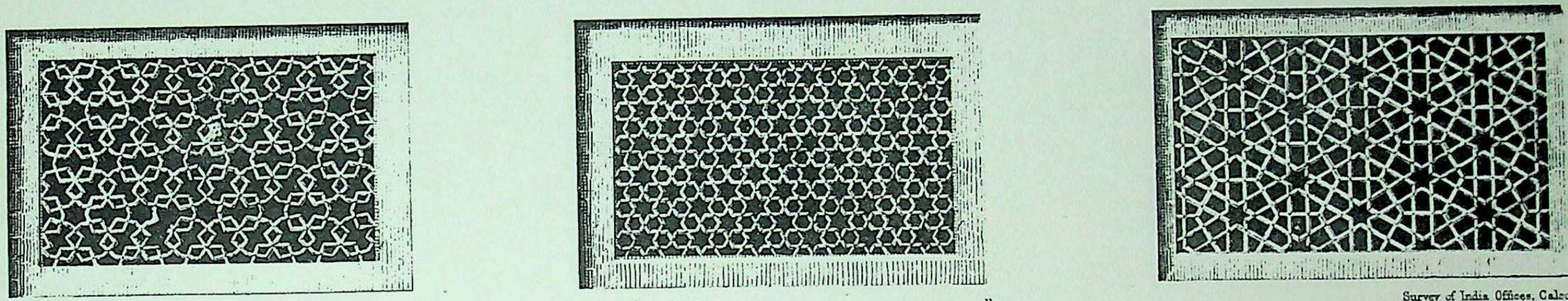
PLATE XV is a drawing of the soffit of the verandah roof on the south side of the house. It is of stone, in thirteen solid slabs, wrought on the underside into an exquisite paneled ceiling, whilst the outside is worked in imitation of tiling. A portion of the elevation is given on Plate XIII; Fig. I. It is hipped at the angles and supported on richly carved stone beams projecting inwards some 9″ from the face of the ceiling. It is divided into a series of panels by means of raised and ornamented bands corresponding to the rafters of a wooden roof. These main panels are again sub-divided into a series of seventy-six smaller ones, filled in with exquisite geometric tracery and pateræ, enclosed by flat herring-bone carved borders A wealth of ornament is contained in these ceilings, and for beauty and variety of design they are not to be surpassed in Upper India.



VERANDAH CEILING — SULTANAS HOUSE, FATEHPUR SIKRI

SCALE

Inches. 12 0 1 2 3 4 5 10 15 Feet.



Survey of India Offices, Calcutta, April 1891.

Photo-etching

JÁLÍ WORK FROM THE "ANK MACHAOLI," FATEHPUR SIKRI.

SCALE

Inches. 12 0 1 2 3 4 5 6 7 8 9 Feet.

TECHNICAL ART SERIES, 1891.

PLATE XVI.

WALL SURFACE DECORATION IN THE TOMB OF SHAH KARIM, BIJAPUR.

THE surface decoration shewn in plate 16 is worked out in stone, and surrounds the windows on the inner faces of the walls of the tomb of Shah Karim, a small square, domed building close beside the Jami masjid at Bijapur. It is cleanly cut, crisp, and neat. It is 18th century work. They form very good designs for ornamental string courses. The shutters attached to these windows are very plain, and are not much in keeping with the ornament around them. They would have been better if decorated with ornamental cross rails and iron studs.

Govt. Archæol. Survey of Western India. No. 845.

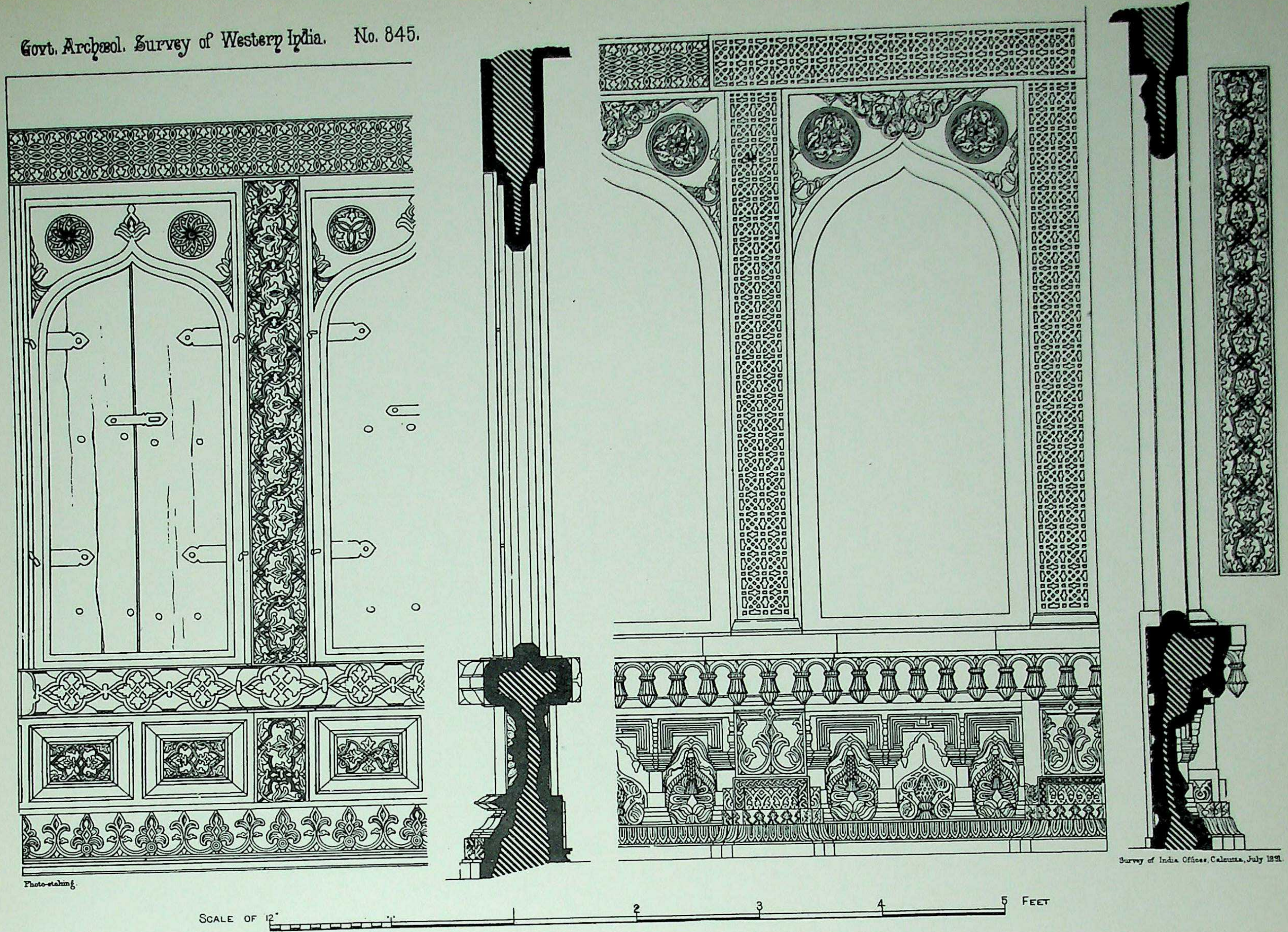

Scale of 12"
1
2
3
4
5 Feet

Photo-etching.

Survey of India Offices, Calcutta, July 1891.

SMALL SURFACE DECORATION IN THE TOMB OF SHĀH AT BIJAPUR

TECHNICAL ART SERIES, 1891,

PLATE XVII.

FAÇADE ARCH IN THE CHHOTA 'ASAR MOSQUE BIJAPUR.

THE little building from which the arch on plate 17 is drawn does not in the least pretend to any architectural prominence amongst the buildings at Bijapur; it is indeed a very insignificant building. But on the walls within, and upon the façade, it has some very chaste and ornamental plaster work, worked out in rather good designs. The plaster has been laid on about a half or three-quarters of an inch thick, the design traced upon it, and the interstices cut out while wet. This class of work, being executed in ordinary plaster, is not very lasting when used, as much of it is at Bijapur, upon the exposed faces of buildings. It soon disintegrates and crumbles away with the weather, but for interiors it is a very effective decoration. In some cases the design has been backed with colour, but the soft creamy-tinted plaster looks better without this addition.

Govt. Archæol. Survey of Western India.
No. 796.

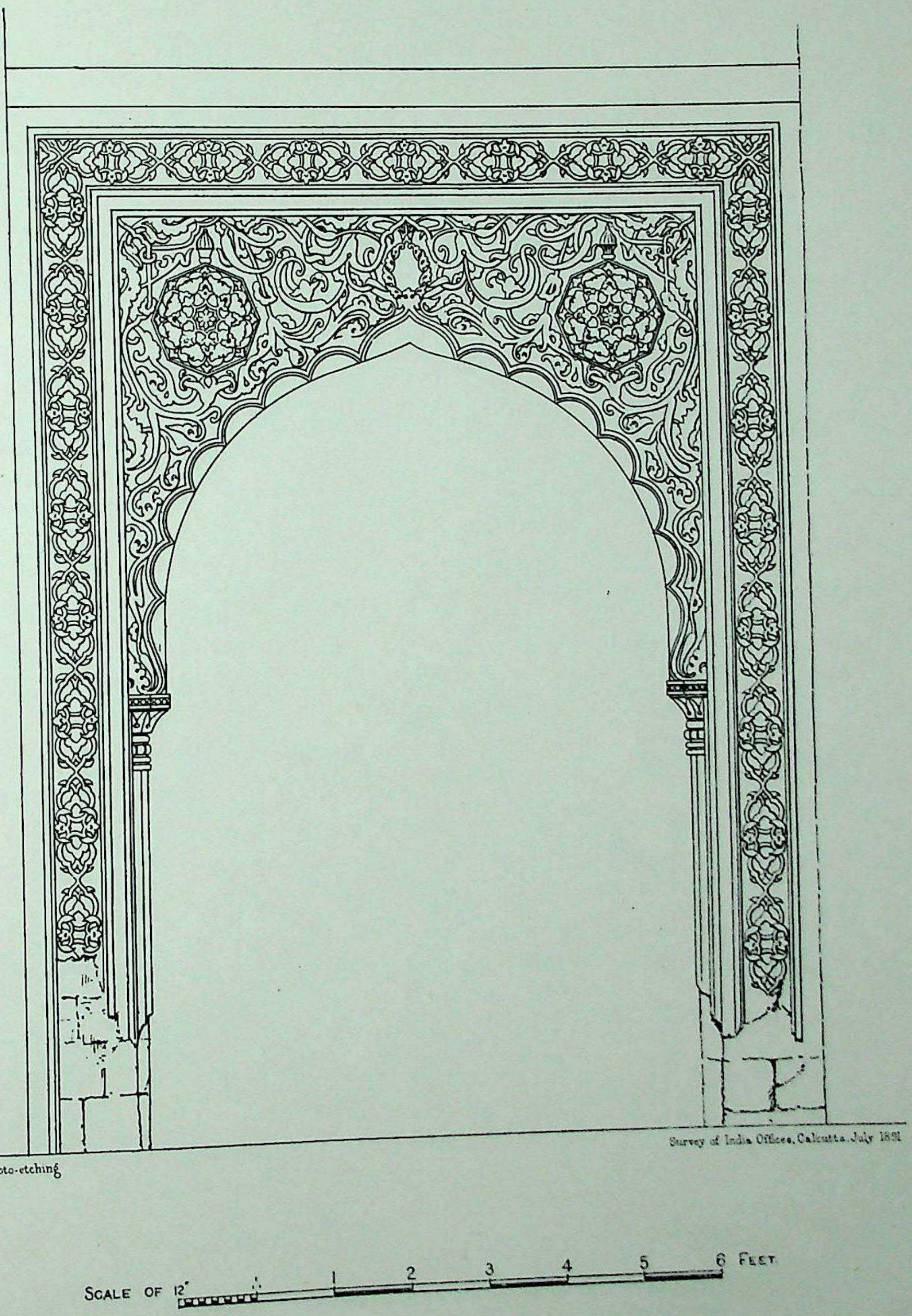

SCALE OF 12"
1
2
3
4
5
6 FEET

Photo-etching

Survey of India Offices, Calcutta, July 1891

FAÇADE ARCH IN THE CHHOTA 'ASAR MOSQUE AT BIJAPUR

TECHNICAL ART SERIES, 1891.

PLATE XVIII.

WOODWORK WINDOW IN THE 'ASAR MAHAL, BIJAPUR.

THE building at Bijapur, known as the 'Asar Mahal, was built by Sultan Muhammad, king of Bijapur, about 1646, as a hall of justice, but it was subsequently converted into a semi-religious building in which were deposited relics of the Prophet—two hairs of his beard brought from Makka by a certain saint. Plate 18 shews the geometric tracery, in framed woodwork, which fills the top of one of the large windows in the upper storey. The lights between the tracery were filled in with coloured glass, a little of which, in yellow and blue, still remains; but it is very doubtful whether these gay colours were any improvement. In coloured glass windows the bright colours are generally so strong that any particular design in the framing is lost in the flood of coloured light which streams in, and the beauty of the geometric tracery in these particular windows must have been rather spoiled by the insertion of the glass, and, as the windows were never exposed to the weather, it would have been infinitely better to have left the design without the glass.

Govt. Archæol. Survey of Western India.

No. 763.

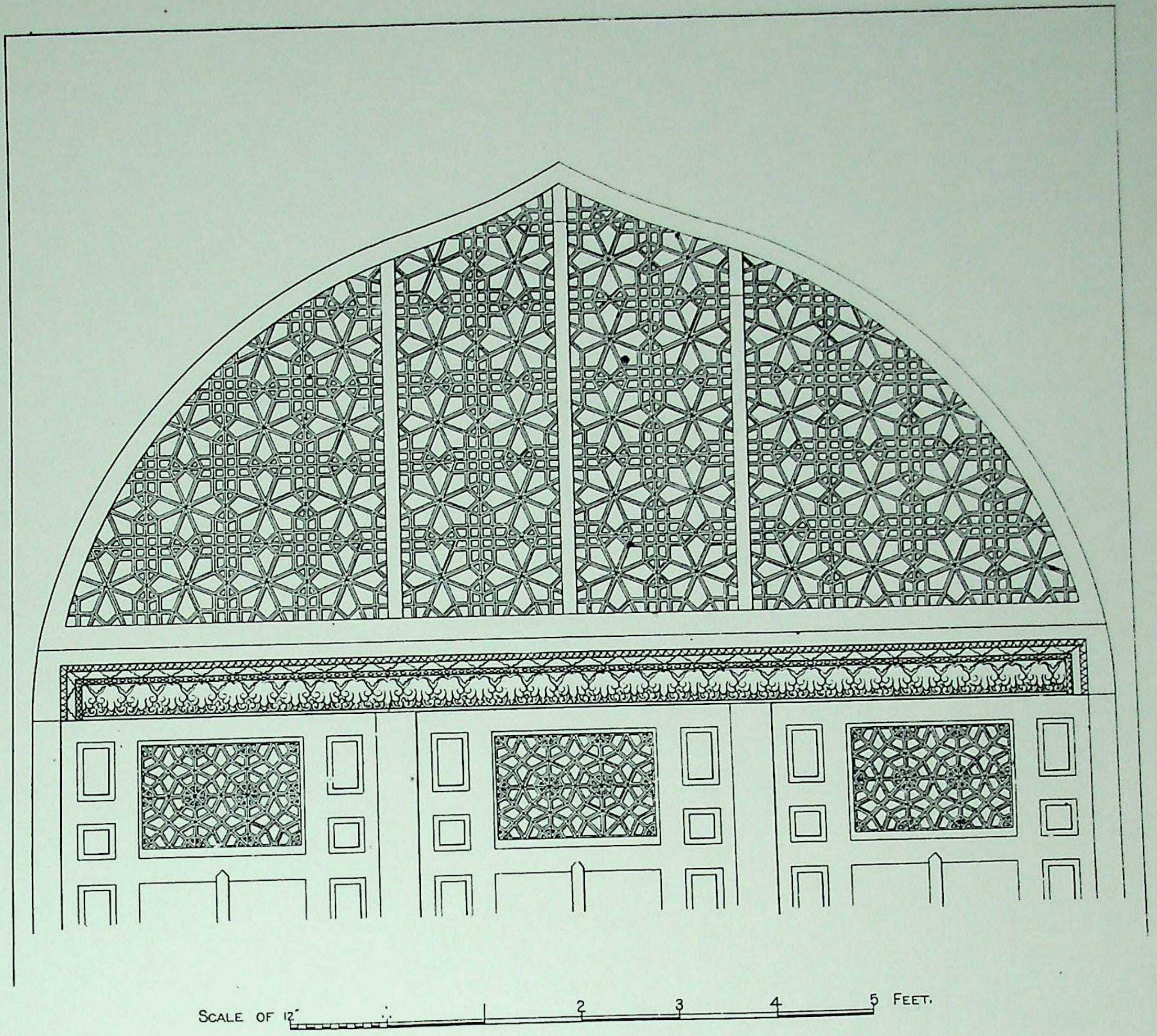

SCALE OF 12"
1
2
3
4
5 FEET.

Photo-etching

WOODWORK WINDOW IN THE ASAR MAHAL AT BIJAPUR

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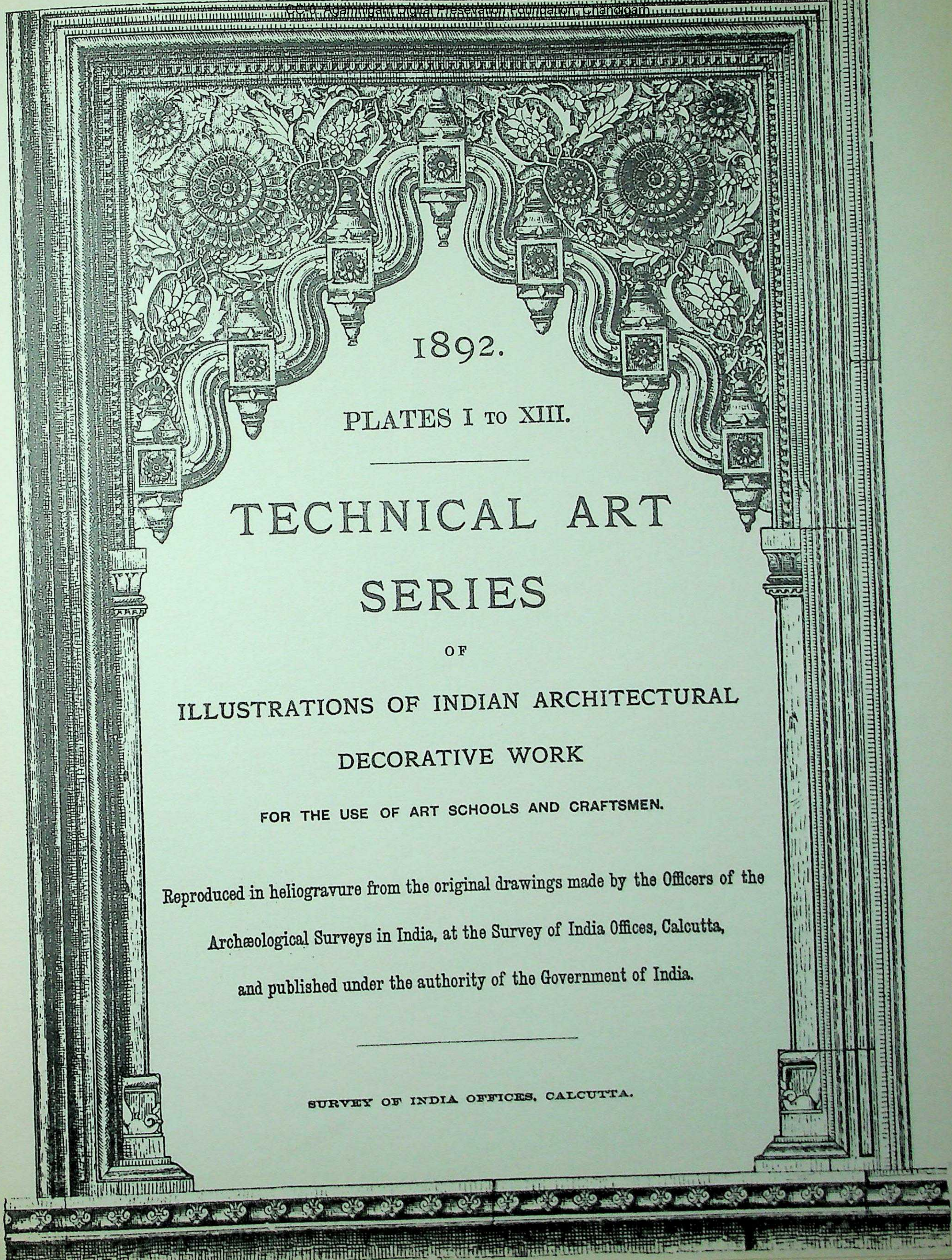


1892.

PLATES I TO XIII.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the Archæological Surveys in India, at the Survey of India Offices, Calcutta, and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

I to V.—Perforated and Stucco Parapets from Bijapur.
VI.—Sculptures from an ancient Jaina Temple at Mathurâ.
VII.—Detail of Stucco Work in Western Wall, Makka-ka-Naqal, Bunnur.
VIII & IX.—Roof of Patharîya Masjid, Thânesar.
X.—Trellised Windows, Tomb of Shaikh Chilli, Thânesar.
XI.—Gateway near Qâzî's Masjid, Sâdhaura.
XII & XIII.—Wood Carving from a house at Srigunda, Ahmadnagar District, Bombay.

PLATES I TO V.

PERFORATED AND STUCCO PARAPETS FROM BIJAPUR.

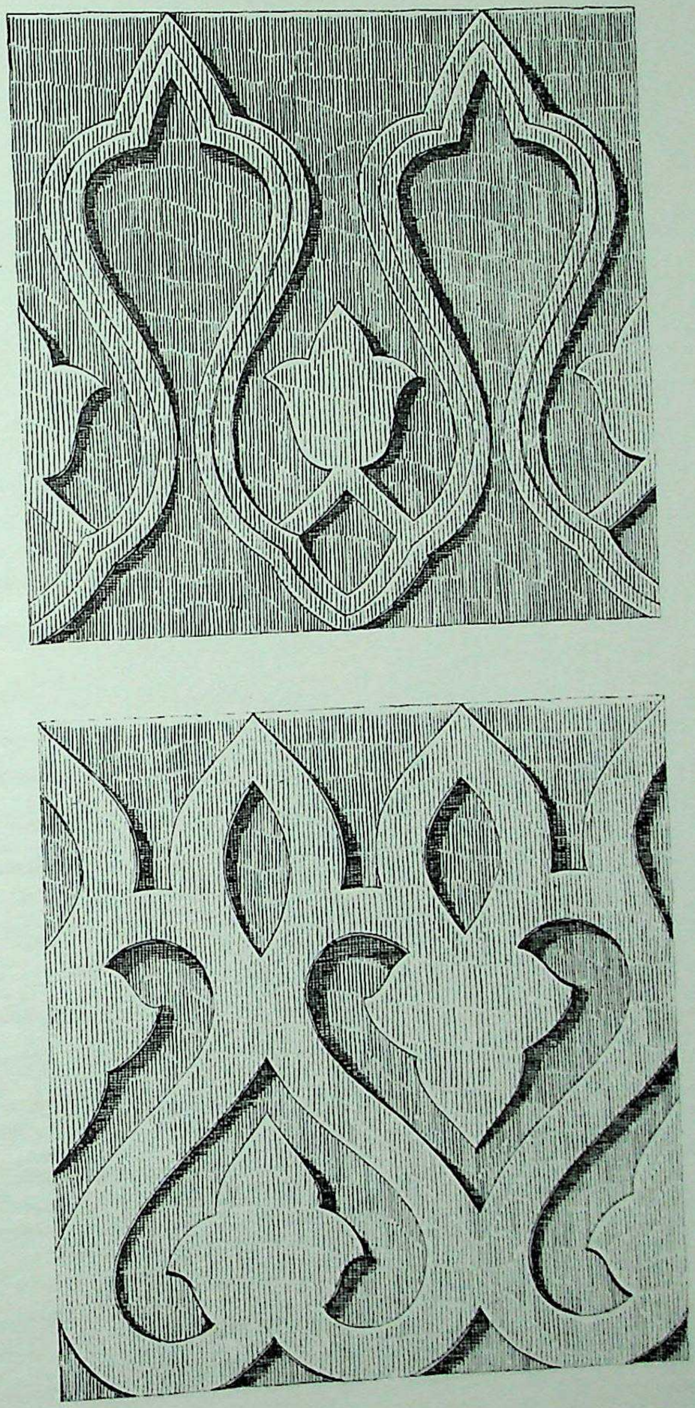
ONE of the most ornamental features of the Muhammadan buildings at Bijapur is the parapet, which, in its plainest garb, is a kind of battlementing made up of *Kanguras* (merlons). These *Kanguras* are generally straight-sided, with arched or pointed tops. Then they become more ornamental, and each takes more the shape of a leaf with curved outline, broad in the middle, but narrowing between that and where it joins the wall, somewhat similar to those shewn in the top figure on Plate I, though not quite so attenuated. When applied as an ornamental finish to the top of a building, they became much more elaborate and intricate in design and formed a kind of lace-like fringe, which gives an excellent finish to the otherwise straight lined edge of the building.

In the better buildings they are of stone, in thin slabs set up on edge, and prettily perforated; the thickness of the slabs averaging four or five inches. In other buildings, which are built of rubble or brick and plastered, the *Kanguras* are constructed in raised plaster upon a flat surface, the material not admitting of much, if any, delicate perforation in positions exposed to the weather.

The variety of these patterns, which are more or less geometric in outline and into whose designs those beautiful curves so dear to the heart of the Musalman artist are plentifully introduced, are practically endless. In these buildings they take the place of what is often seen in European buildings, viz., a parapet of balusters along the top of the façade. Sometimes the one pattern is carried right round the four sides of the building; oftener a much plainer and simpler parapet is used on the back and sides, the more elaborate design being reserved for the front.

The patterns given in Plates IV and V are from the sides of the little *Chhattris* upon the roof of the Gol Gumbaz, the tomb of Sultan Mahmud, where they are worked in plaster relief in bands around them. They are of the same kind of designs as the ornamental plaster *Kanguras* already mentioned.

H. COUSENS.



STUCCO PARAPETS FROM VARIOUS BUILDINGS AT BIJAPUR.

SCALE OF 12"
1
2
3 FEET

PLATE II.

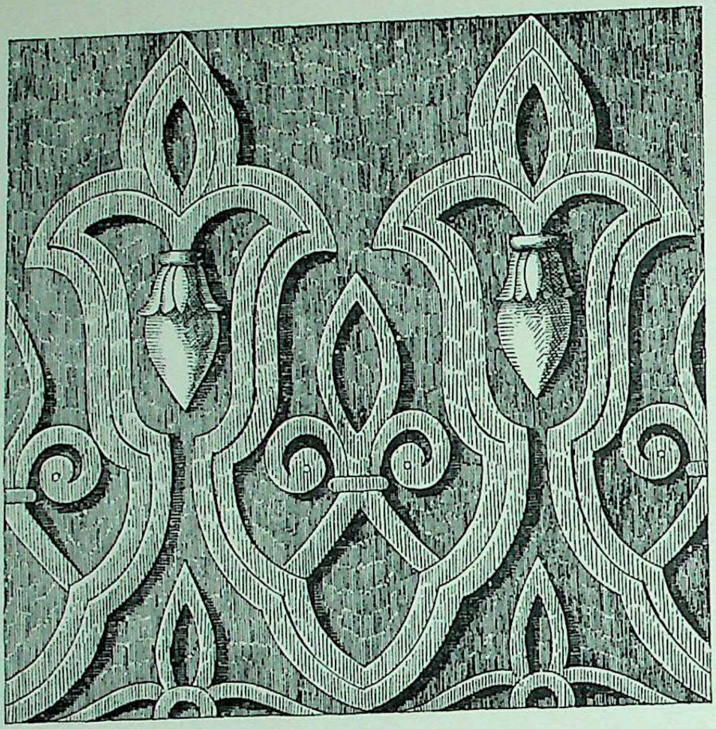


Fig. I.

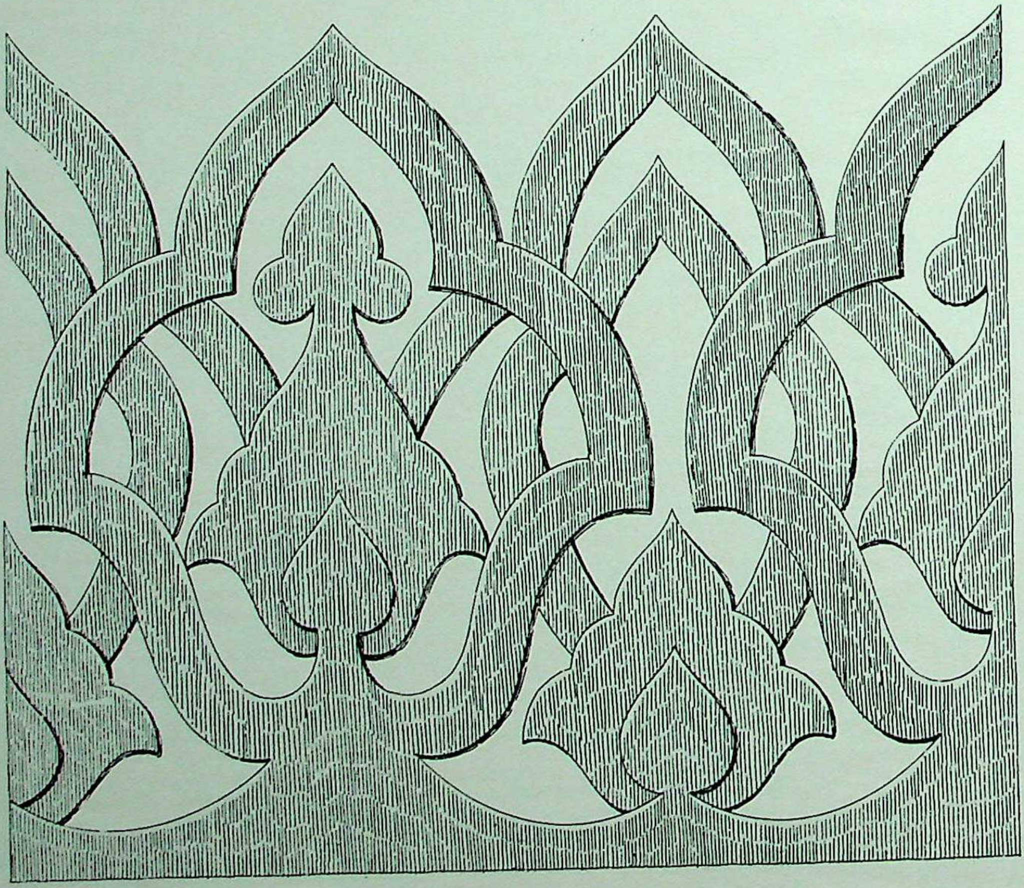
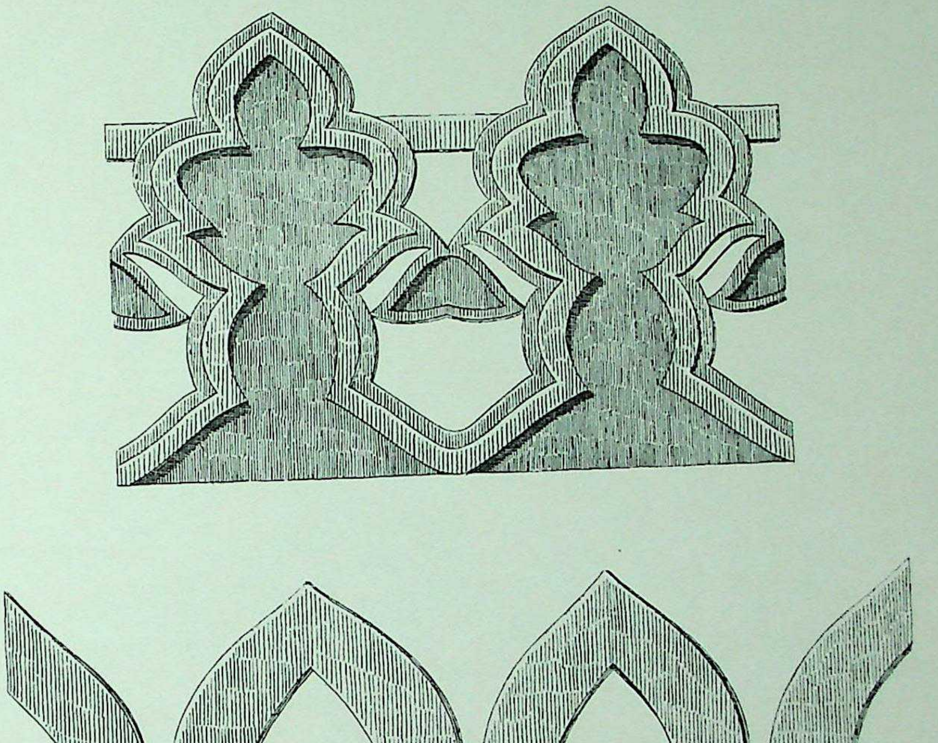


Fig. II.

PERFORATED AND STUCCO PARAPETS FROM VARIOUS BUILDINGS AT BIJAPUR.

SCALE OF 12 1 2 3 FEET

Litho by H.K. Chowdhuri, Studt. Govt. School of Art, Calcutta.



PERFORATED AND STUCCO PARAPETS FROM VARIOUS BUILDINGS AT BIJAPUR.

Scale of 12 1 2 3 Feet

Litho by H.K. Chowdhuri, Supdt. Govt. School of Art, Calcutta.

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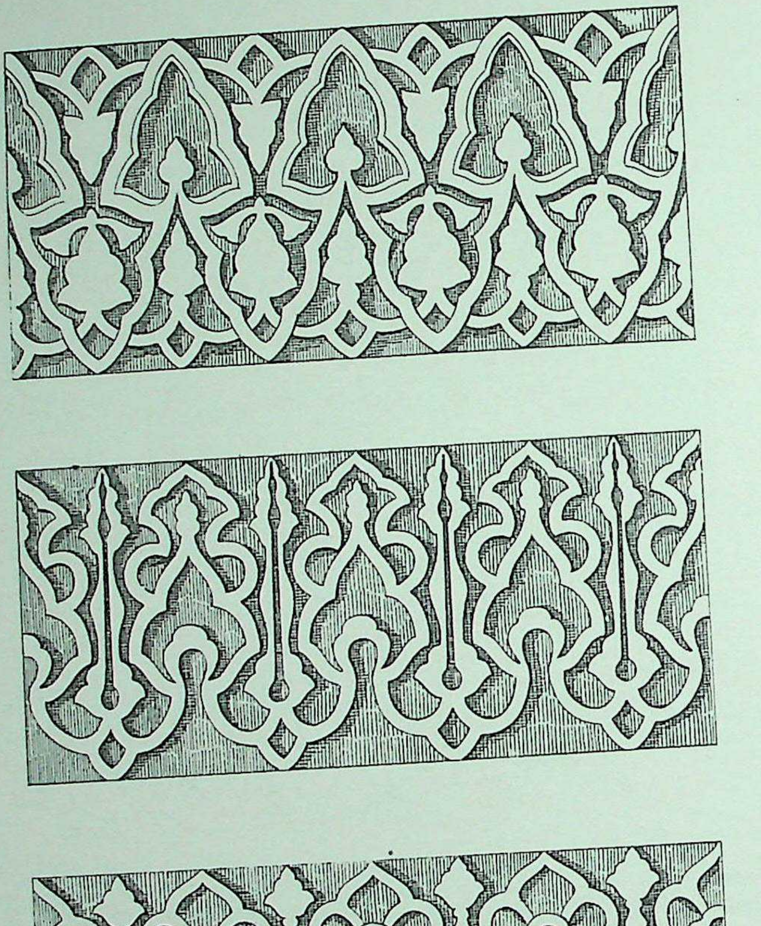
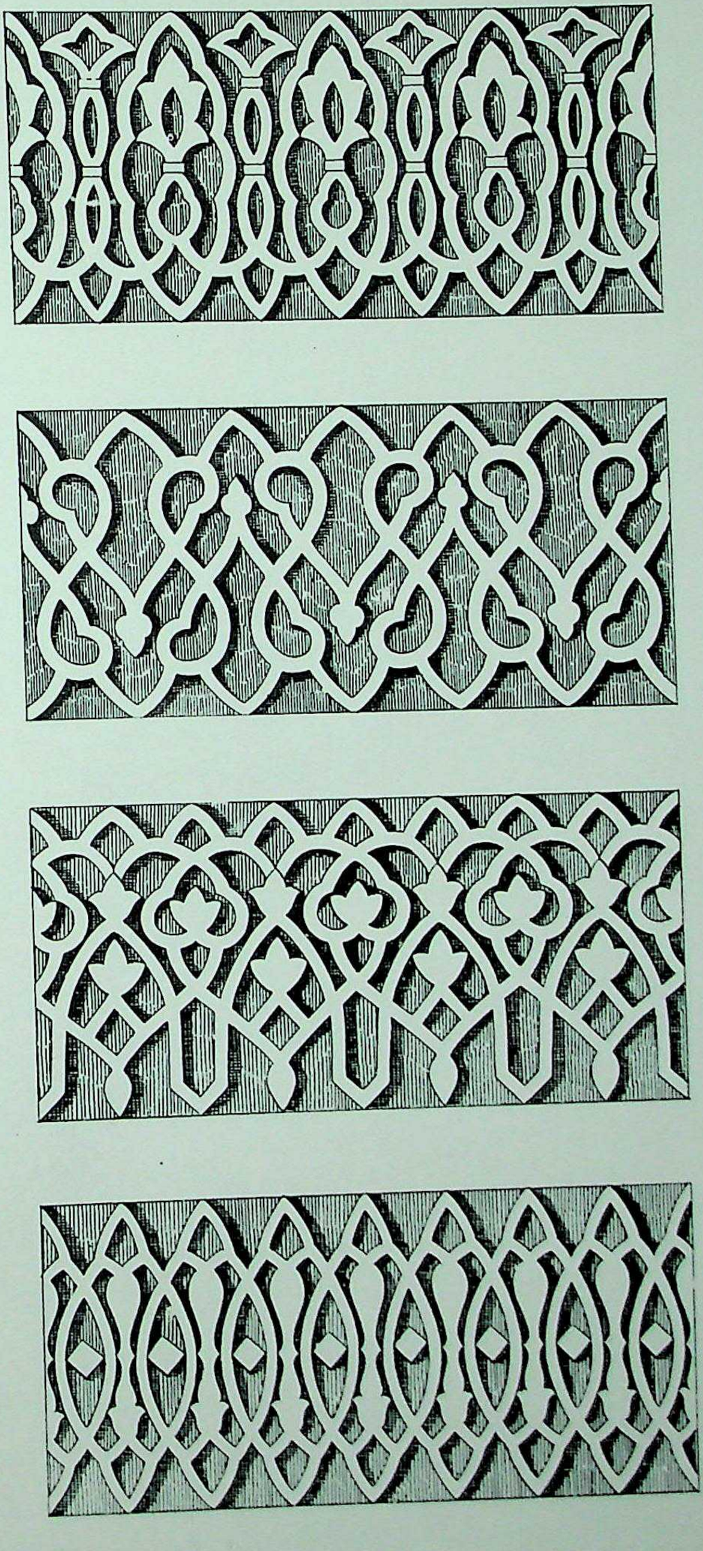


RAISED STUCCO PATTERNS FROM THE GOL GUMBAZ, BIJAPUR.

SCALE OF 12 1 2 3 FEET

Litho. by S. C. Mondul, Studt. Govt. School of Art, Calcutta.



RAISED STUCCO PATTERNS FROM THE GOL GUMBAZ, BIJAPUR.

SCALE of 12 1 2 3 FEET

Litho. by S. C. Mondul, Studt. Govt. School of Art, Calcutta.

PLATE VI.

SCULPTURES FROM AN ANCIENT JAINA TEMPLE AT MATHURÂ.

THE illustrations on Plate VI form part of the ornamental details of an ancient Jaina temple buried under the Kankâlî Tilâ at Mathurâ, which was excavated by me in January 1891. According to the inscriptions found on the spot, this temple was built during the Indo Scythic period, between the years A.D. 83 and 177. The numerous finds prove also that the national Indian arts of architecture and sculpture flourished in a high degree at Mathurâ during the sway of the Scythians over Northern India. Figures 1 and 2 are Jaina symbols on the square bases of small round columns, laboriously chiselled in red sandstone and carefully finished. Figure 1 represents a favourite design with the ancient Jainas at Mathurâ, viz., the *dharmachakra* or "the turning of the wheel of the holy law." Figure 2 however, is the principal Jaina symbol of the Mathurâ School, viz., the *triratna* symbol, which signifies the *tîrthaṁkara*, or the deified teacher of the Jainas, the *dharma* or the holy law, and the *Saṁga* or community. This design was a very favourite form for the pinnacle of a gateway, of the ear-rings of a lady, and for the point of a military standard, or the centre-piece of a necklace. Figure 3 is a broken panel of red sandstone, and contains a floral pattern which, though simple in design is very effective as a decoration. In the treatment of the undulating stalk, studded with leaves and flowers, surrounded with a small border, the ancient Mathurâ artist has shewn both fertility of design and delicacy of taste, and the result is a series of ornamentations of rare beauty.

A FUHRER

Fig 1.

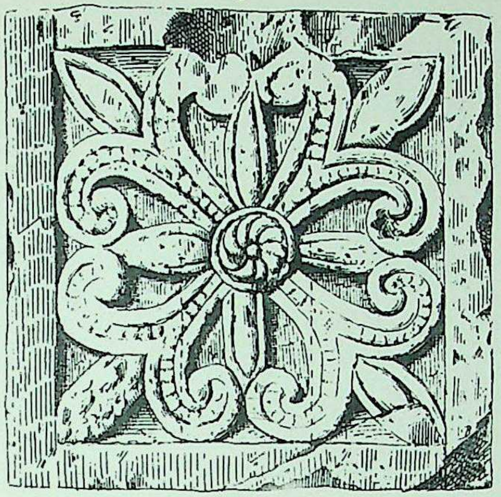
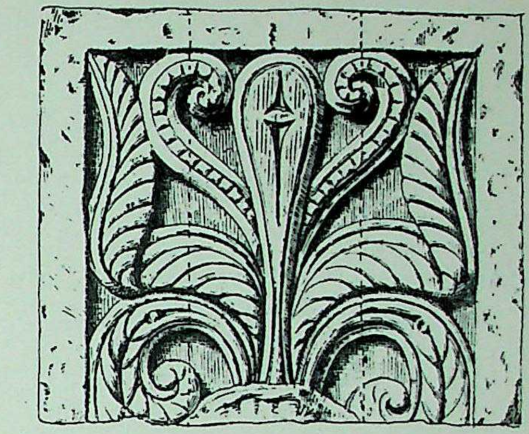
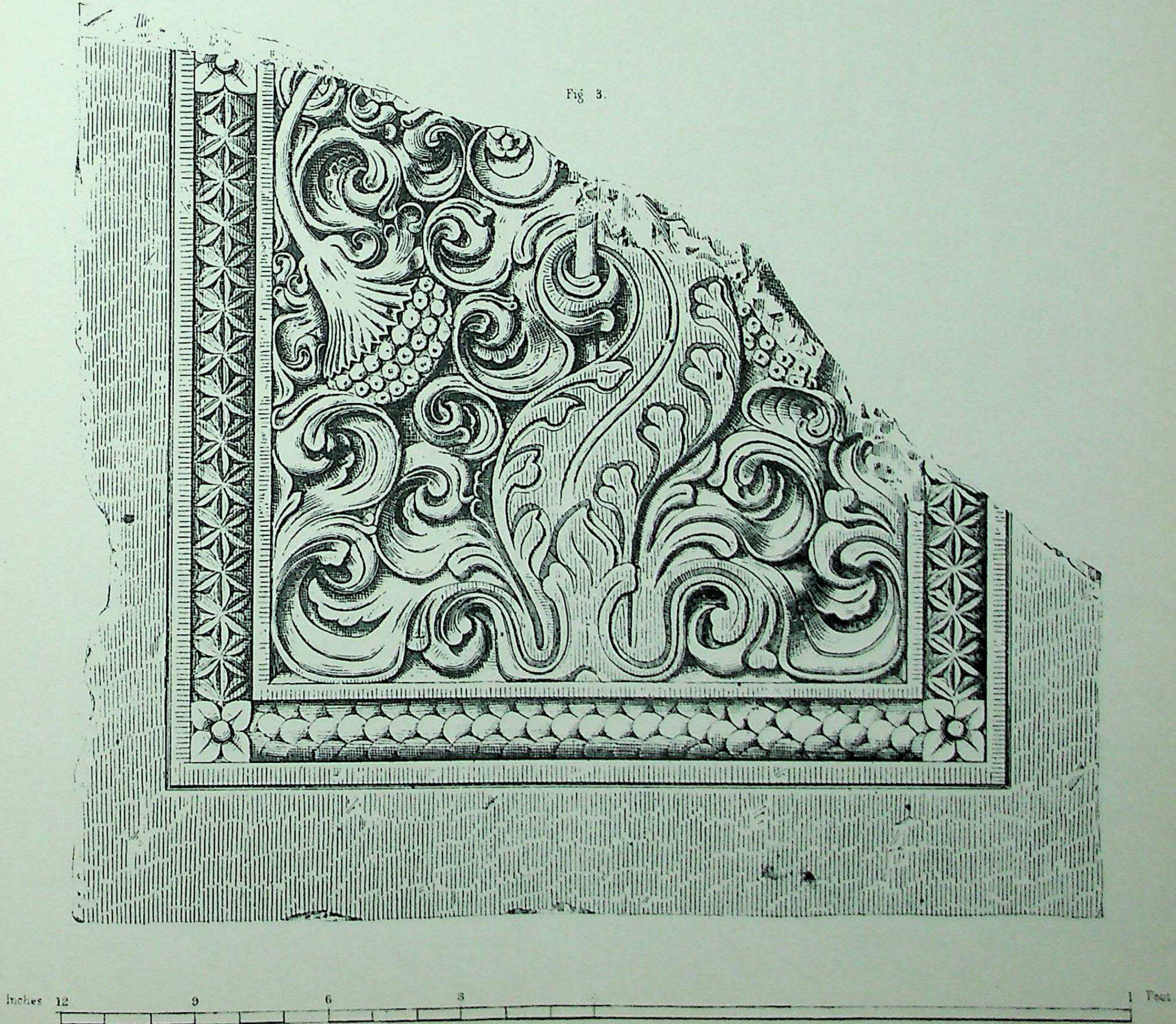


Fig 2



SYMBOLS ON THE BASES OF SMALL COLUMNS FROM AN ANCIENT JAINA TEMPLE AT MATHURÂ.

Fig 3.



BROKEN PANEL FROM AN ANCIENT JAINA TEMPLE AT MATHURÂ.

PLATE VII.

DETAIL OF STUCCO WORK IN WESTERN WALL, MAKKA-KA- NAQAL, BUNNUR.

PLATE VII represents some very pretty and interesting ornament in stucco from the interior walls of the small masjid of Makka-ka-Naqal at Bunnur in the Patiala State in the Punjab.

Fig. 1 is a sample of the niches in and around the walls, which for the effect of light and shade have been amply recessed by a series of small receding plain architraves on each side of the opening. The back is arched over by a very debased form of arch. Surrounding the niche is a border enriched by a chain scroll and strap ornament, whilst the top is embattled and ornamented with carving.

Fig. 2 illustrates the parapet wall around the quadrangle. It is crested in the form of a moulded trefoil zig-zag, each division being curiously carved with a conventional leaf scroll border around a narrow irregular elongated panel ornamented with a carved annulet and strap work.

Fig. 3 is a string course below the parapet. Along the top is a scroll connected by a narrow fillet terminating in a pendant drop and dividing the face of the string into a series of small spaces the faces of which are ornamented with raised strap carving.

The style of the work and the ornament is closely allied to that found on the Chaurasi Gumbaz at Kâlpi in the Jalaun District of the North-Western Provinces, ascribed to the Sikandar Lodi period, which was illustrated in last year's *Technical Art Series*.

E. W. SMITH.

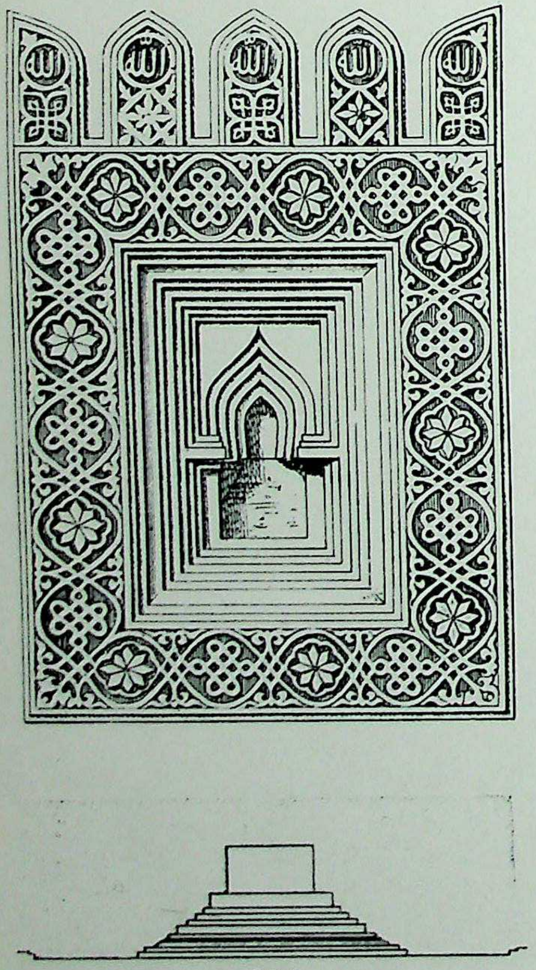


Fig. 1

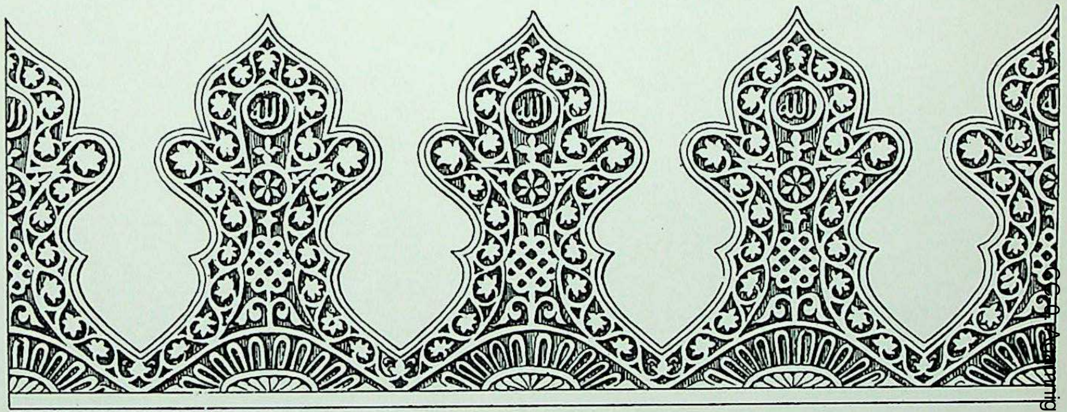


Fig. 2

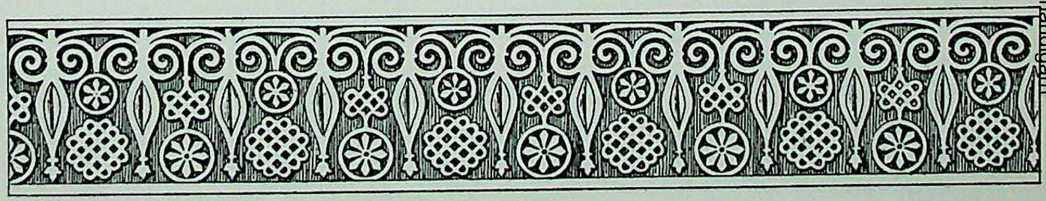
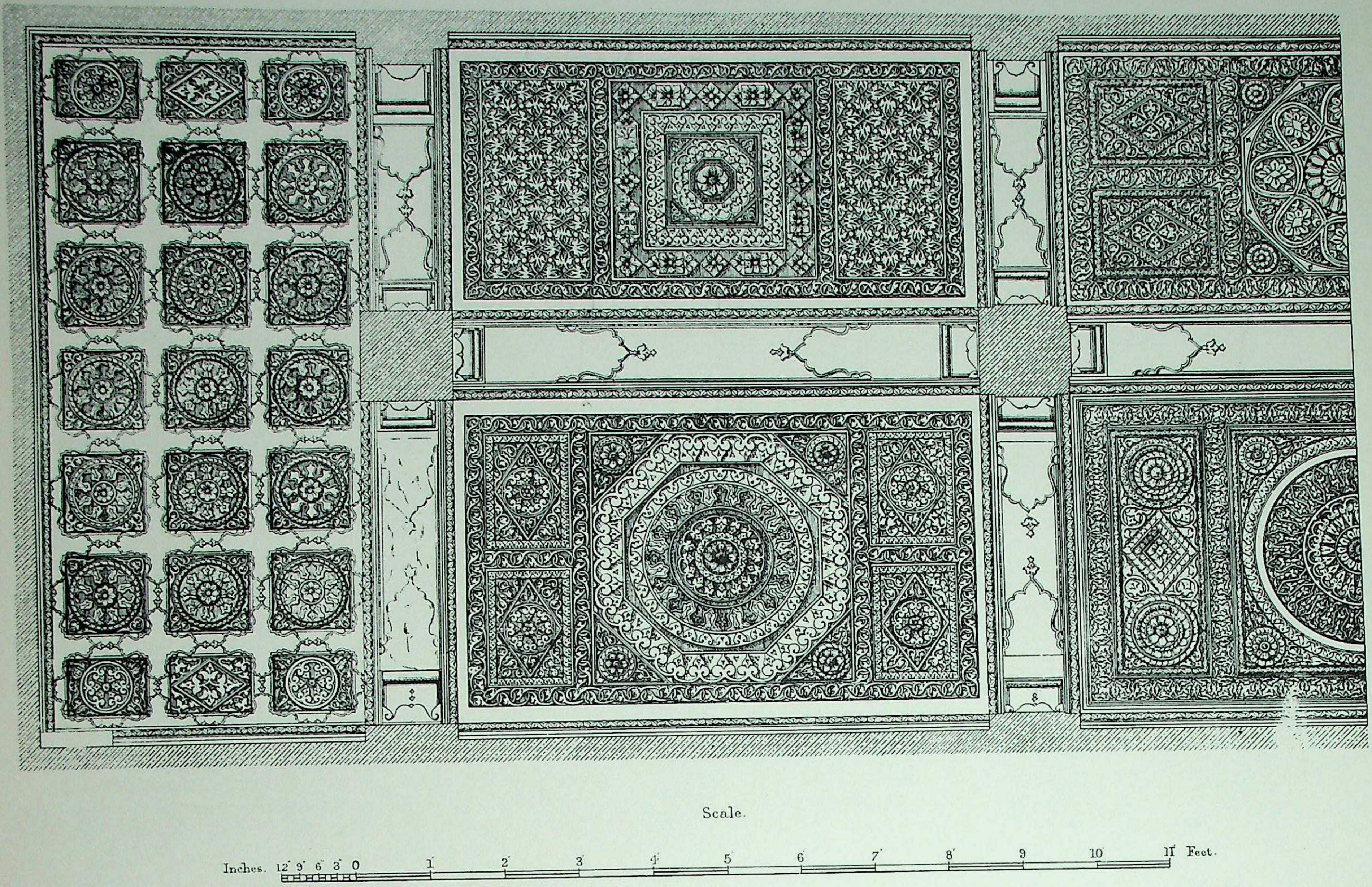


Fig. 3

Inches. 12 9 6 3 0
1
2 Feet.

DETAILS OF STUCCO-WORK IN WESTERN WALL. MAKKA KA NAQL. BUNNUR.

Survey of India Offices, Calcutta, July 1892.

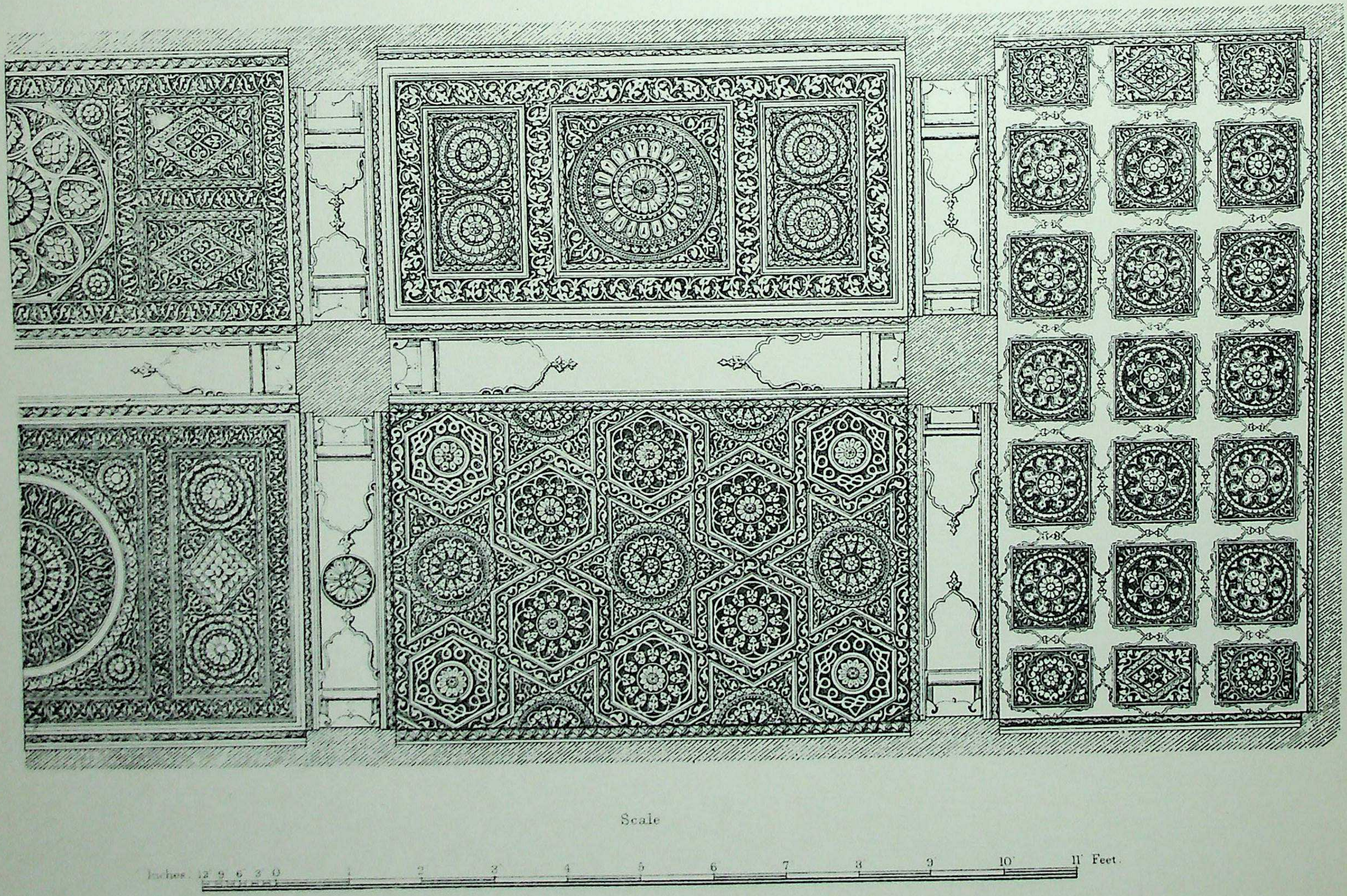

Scale.
Inches. 12 9 6 3 0
1 2 3 4 5 6 7 8 9 10 11 Feet.

SOUTHERN HALF OF ROOF PATHARÎYA MASJID, THÂNESAR.

Photo-etching.

Survey of India Offices, Calcutta, June 1892.

PLATE IX.


Scale
Inches 12 9 6 3 0
1
2
3
4
5
6
7
8
9
10
11 Feet.

NORTHERN HALF OF ROOF, PATHARİYA MASJID, THANESAR.

PLATE X.

TRELLISED WINDOWS, TOMB OF SHAIKH CHILLI, THÂNESAR.

Like Plate IX this illustration is taken from Thânesar, but in this case from the tomb of Shaikh Chilli, a small octagonal building of white marble, surmounted by a fine dome of the same material.

The windows, like those surrounding Saint Salim Chishti's tomb at Fathpur Sikri, are carved out of solid blocks of white marble, the spaces between the trellising extending the entire thickness of the slab. The centre pier is of a flowered pattern, enclosed by a plain flat border, surrounded by an elaborate panel, carved with a floral design, set in a plain architrave.

From the style of trellising and the dome surmounting the tomb, which is pear-shaped, this building may have been built about 1650 A. D.

E. W. SMITH.

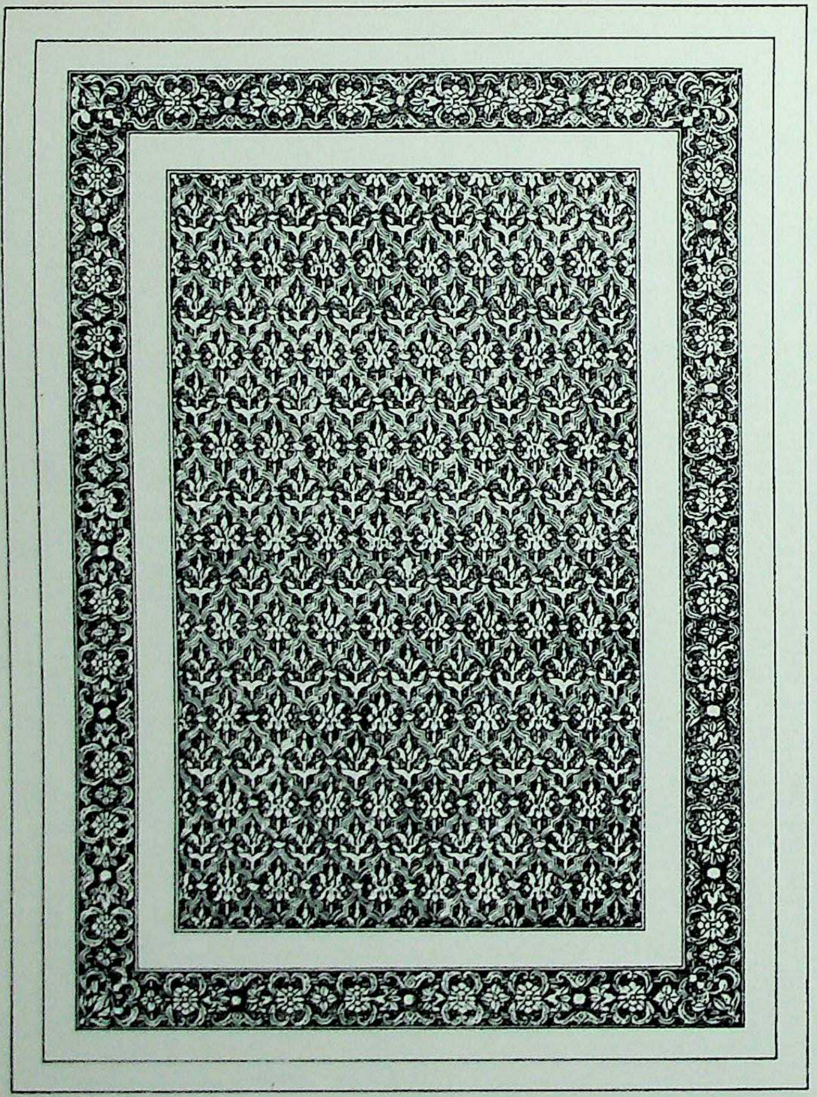


Fig: 1

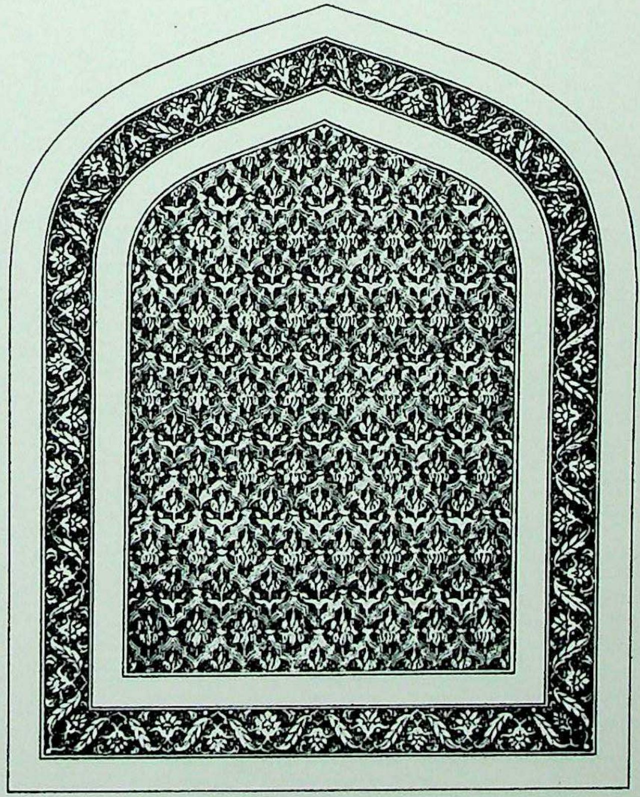
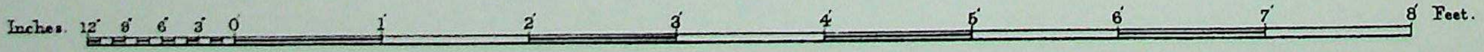


Fig. 2

Scale.


Inches. 12 9 6 3 0
1
2
3
4
5
6
7
8 Feet.

TRELLISED WINDOWS. TOMB OF SHAIKH CHILLÍ. THÂNESAR.

Photo-etching.

Survey of India Offices, Calcutta, August 1892.

PLATE XI.

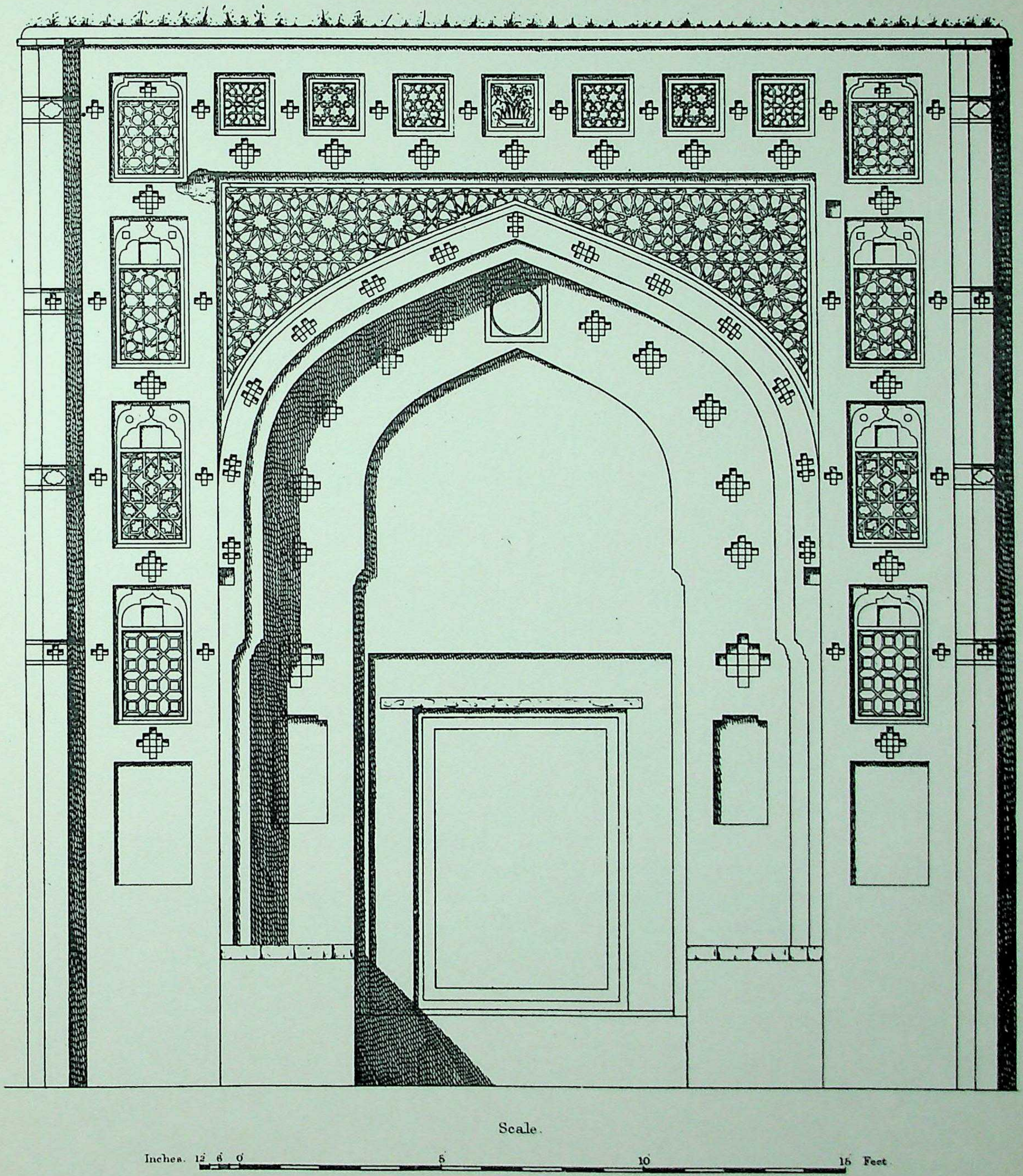
GATEWAY NEAR QÂZÎ'S MASJID, SÂDHAURA.

Sâdhaura is an old town, once the head-quarters of a large district, situated some 24 miles to the east of Ambâla in the Punjab. Amongst other remains are two gateways, one of which we now illustrate.

The entrance is arched, and the spandrils over it filled in with a rich and intricate design moresque in feeling, whilst the front faces of the abutments on each side are cut up by five oblong panels, the horizontal space over the vertex of the arch being divided into seven smaller but similar ones.

The gate is built of brick, stuccoed over, and the spandrils of the arches and the panels are ornamented with glazed tiles of geometrical design, in blue, yellow, and green.

E. W. SMITH.


Scale.
Inches. 12 6 0
5
10
15 Feet

GATEWAY NEAR QAZĪS MASJID, SADHAURA.

Photo-etching.

Survey of India Offices, Calcutta, August 1892

PLATES XII AND XIII.

OLD WOOD CARVING.

OLD wood carving is found all over Western India, from Sidhpur, in North Gujarat, to Bhatkal, at the extreme south of the Presidency, but it is perhaps most plentifully found in Gujarat. It occurs in civil, domestic, and some of the more modern religious buildings. It is used chiefly as decoration to the facades of houses, and often a house front is seen profusely covered with it from basement to eaves. In Patan, in North Gujarat, are some particularly fine examples of this elaborate carving: windows, doors, and walls being a mass of intricate and beautiful design. Nor is it confined to Hindu structures, for we find some splendidly carved beams in some of the old Portuguese churches in Old Goa—work which is curiously similar, at first sight, in its general treatment, to Hindu and Jaina work. In Gujarat it is still a living art, and some very fine work is yet turned out; but with less freedom of design, and more stereotyped forms, than in the older work. This newer work is, moreover, almost invariably ruined by paint. Brilliant reds, greens, and yellows, picked out in very haphazard manner, quite drown the wood carver's work. The latter did his utmost to display his skill, but the painter, called in when his work was finished, has completely obliterated it by a huge advertisement of gorgeous colours. Very little of the old work has been so treated. Workmen and their patrons seem to have possessed better taste then, and the uniform sepia-tinted carving shows to advantage alongside the meretricious work of the present day.

Both the new and the old work are generally put together in a very rough and unbusiness-like way. The carver's work appears to have ended with the carving, and the village carpenter, taking it in hand as so much timber, knocked it together with great iron spikes and nails, and rough clumsy clamps. Joinery was always, and still is, a very weak point in native work. Wood carving of this class is very frequently disfigured by the presence of ugly iron chains, nail-heads, bolts, and clamps, attached with utter disregard to the design, and often in the middle of some of the best work. The only remedy for these defects is the careful training of the workmen. The eye, especially, requires training to accuracy and neatness and a readiness to detect unsightly combinations or arrangement of, or additions to otherwise good work.

GovT ARCHÆOLOGICAL SURVEY OF WESTERN INDIA. No 966.

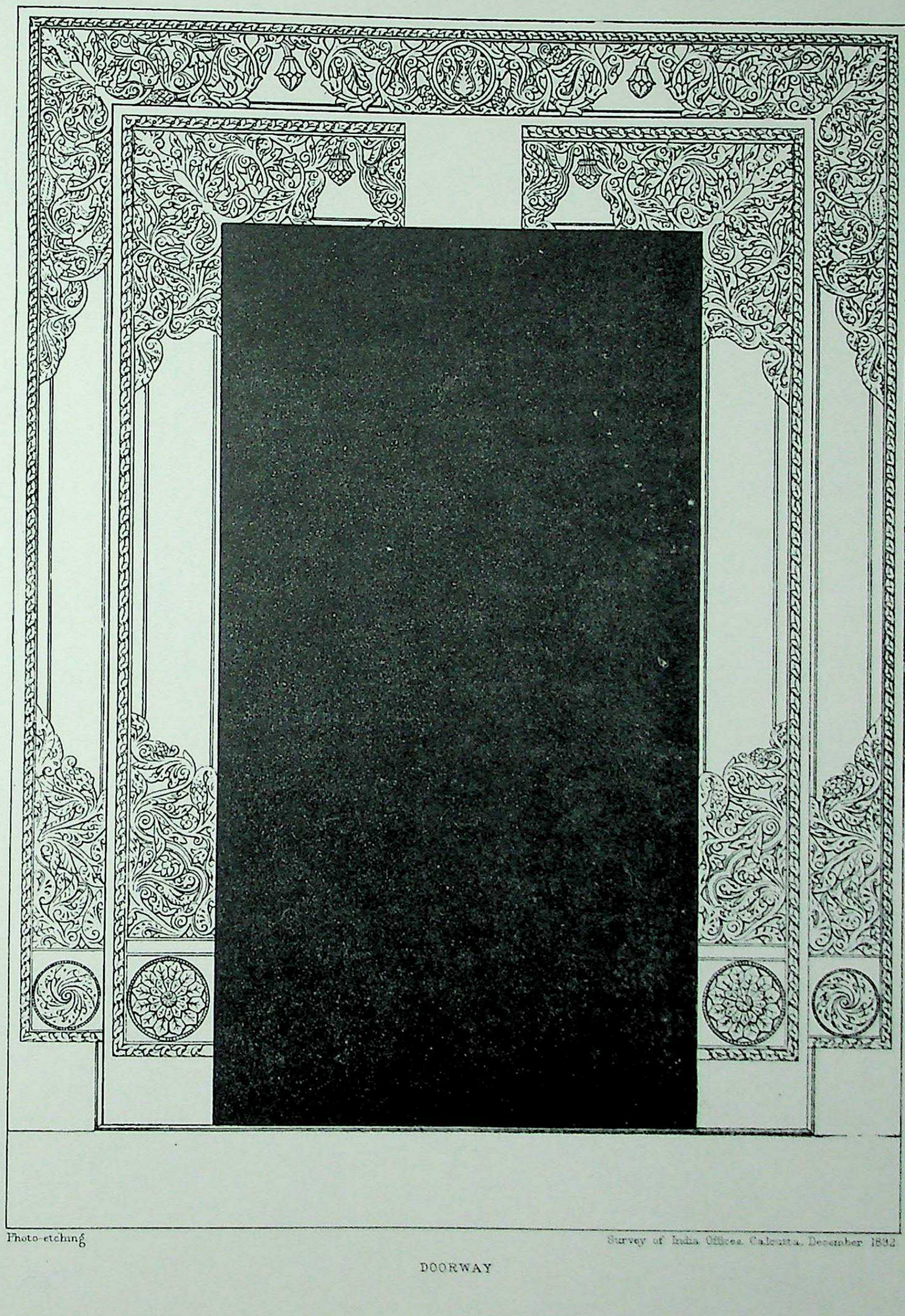
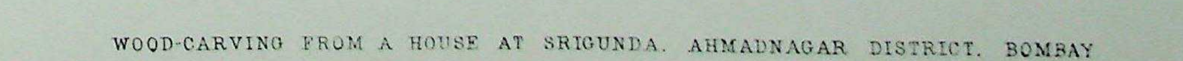


Photo-etching

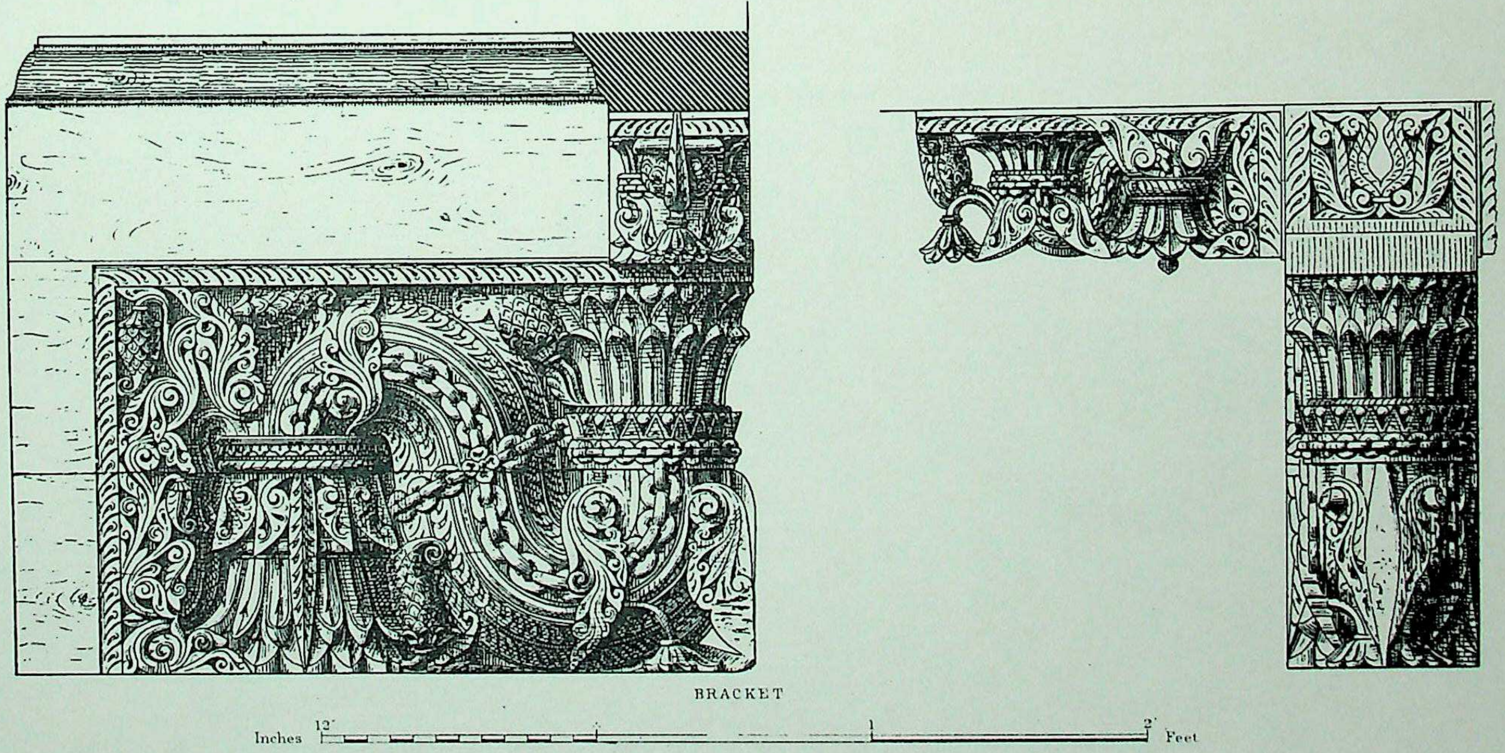
Survey of India Offices, Calcutta, December 1892

DOORWAY

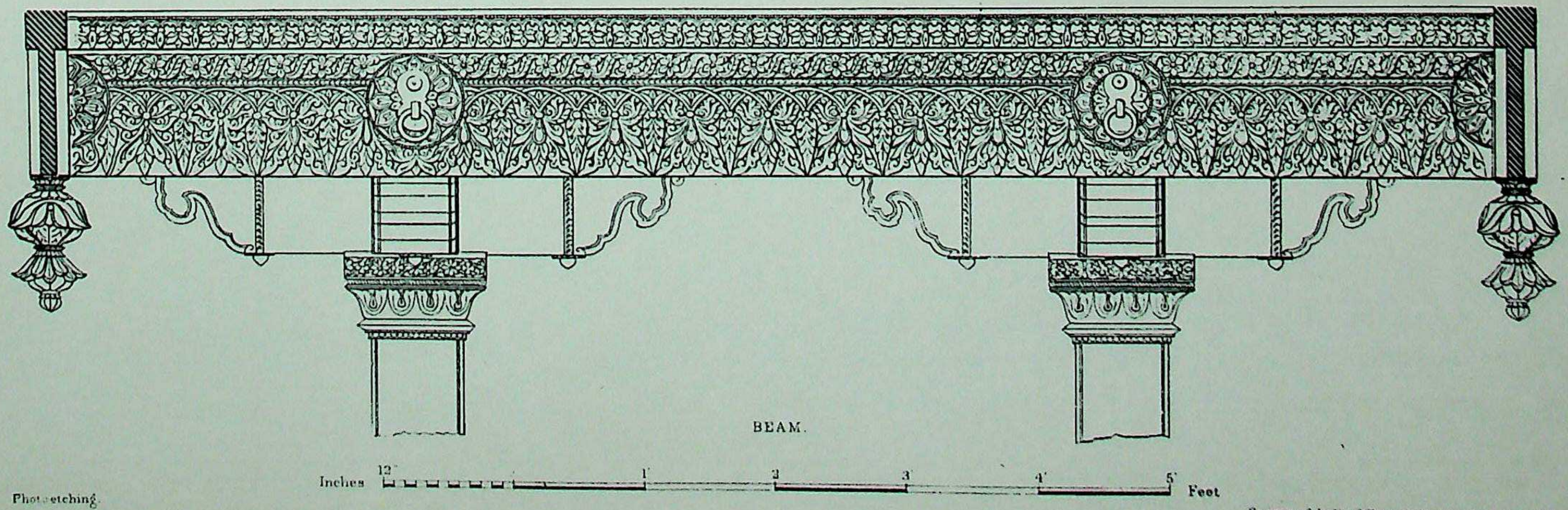


WOOD-CARVING FROM A HOUSE AT SRIGUNDA. AHMADNAGAR DISTRICT. BOMBAY

Govt Archæological Survey of Western India, Nº 966.


Inches
12"
1
2'
Feet

BRACKET

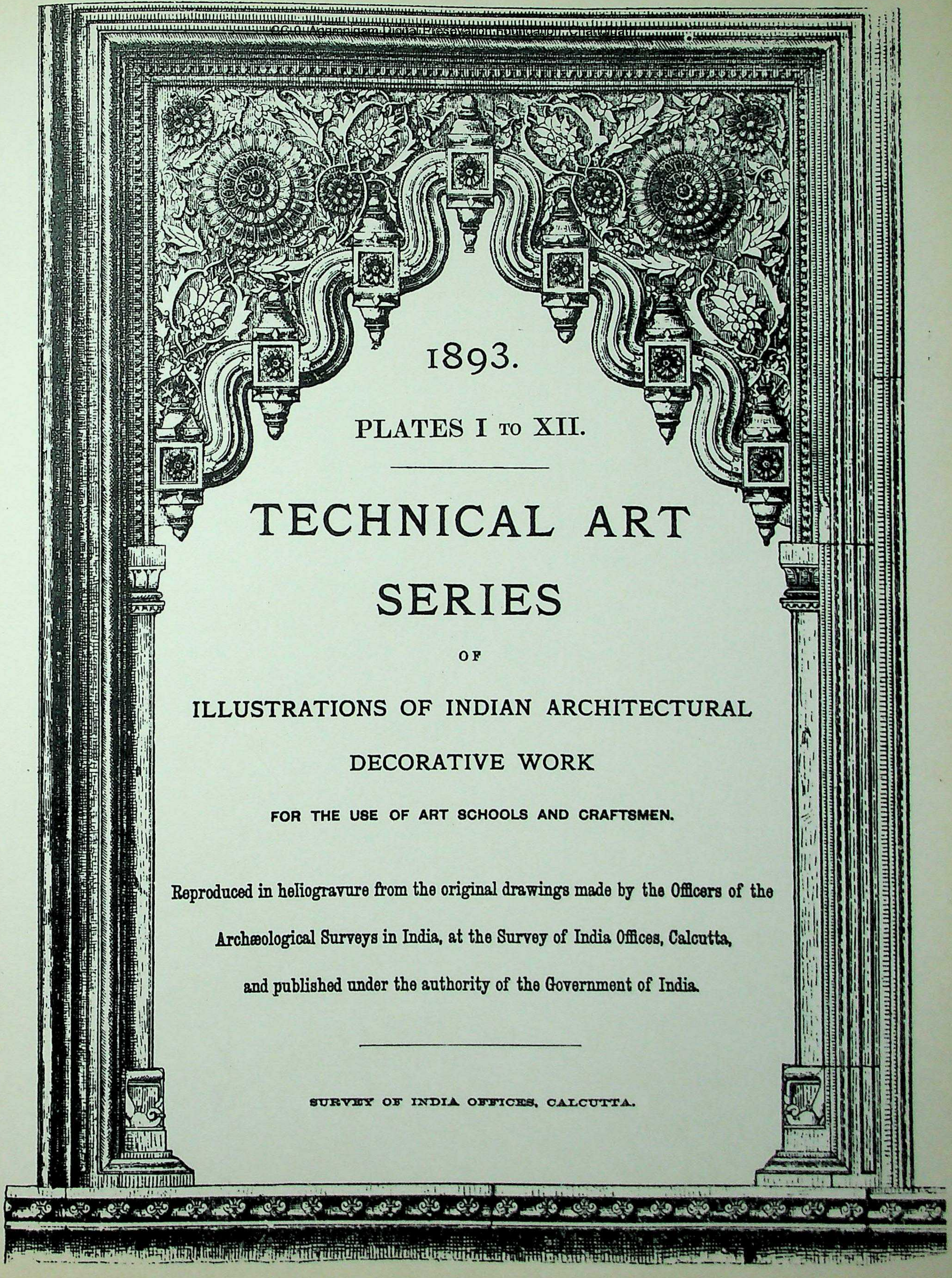

Inches
12"
1'
2
3'
4'
5'
Feet

BEAM.

Photoetching.

Survey of India Offices, Calcutta December 1892.

WOOD CARVING FROM A HOUSE AT SRIGUNDA, AHMADNAGAR DISTRICT, BOMBAY.



1893.

PLATES I TO XII.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the Archæological Surveys in India, at the Survey of India Offices, Calcutta, and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

I.—Panel and Ornaments on Piers, Râmasvâmi Temple, Kumbakonam, Tanjore District.

II & III.—Carved Panels on the Shrine Pilasters, Nâgêswara Temple, Kumbakonam (II), and on the Panchanêdâs'vara Temple (III), Tiruvâdi, Tanjore District.

IV & V.—Mihrab from ruined Mosque at Erandol, Khandesh.

VI.—Part of Facade in Wood Carving from a house at Srigunda, Ahmadnagar District, Bombay.

VII.—Detail of Patera, Jodh Bai's Palace, Fatehpur Sikri.

VIII & IX.—Detail of Ornamented Jali-Balustrades and Panel, Jodh Bai's Palace. Fatehpur Sikri.

IX.—Details of Jali-Balustrade and Screen Work in Hawa Mahal, Jodh Bai's Palace, Fatehpur Sikri.

X.—Detail of Window, Jodh Bai's Palace, Fatehpur Sikri.

XI.—Detail of Shaft in Reception Room, Jodh Bai's Palace, Fatehpur Sikri.

XII.—Detail of Balconette, Jodh Bai's Palace, Fatehpur Sikri.

TECHNICAL ART SERIES 1893.

PLATE I.

PANEL AND ORNAMENTS ON PIERS, RÂMASVÂMI TEMPLE, KUMBAKONAM, TANJORE DISTRICT.

THE temple of Râmasvâmi is architecturally the principal building in the town of Kumbakonam. Its earliest shrines date from the 11th century. The front colonnade dates from the 17th century. The latter contains a number of highly ornate piers, approaching in style the vork found at Madura. The figures in the plate are examples of Dravidian carving from these piers. Fig. 1 is a horizontal band. Figs. 2 and 3 are ornaments applied to the body of the shaft. Fig. 4 is a panel on the square blocks found at the base, capital, and middle of the piers.

A. REA.

GOVT ARCHÆOLOGICAL SURVEY OF SOUTHERN INDIA Nos 394 & 396.

CC-0. Agamnigam Digital Preservation Foundation, Chandigarh

Fig 1

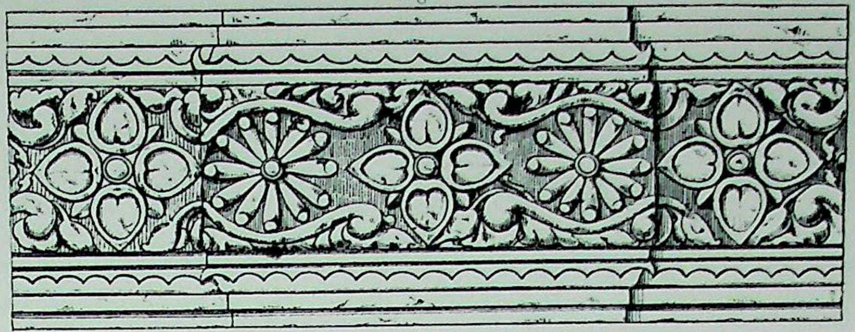


Fig 4.

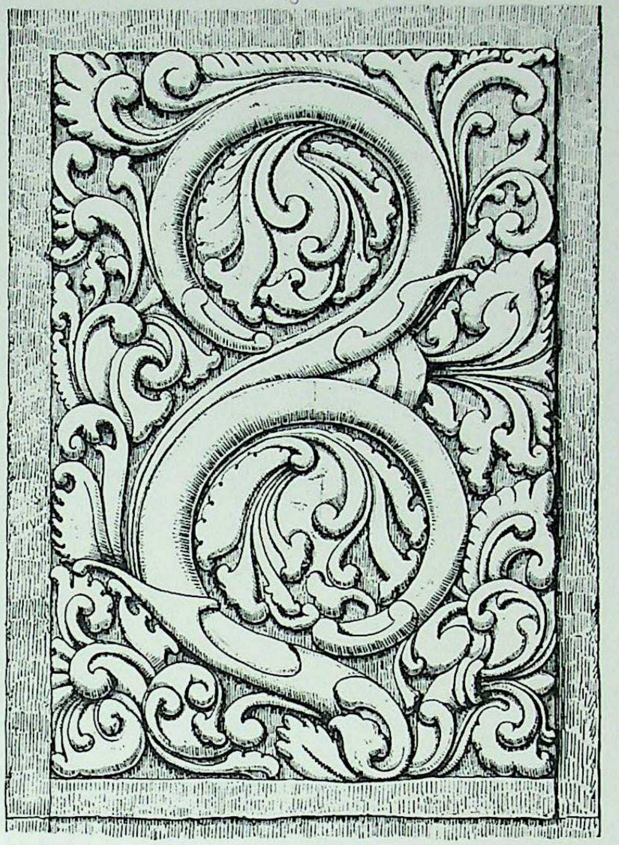


Fig 2.

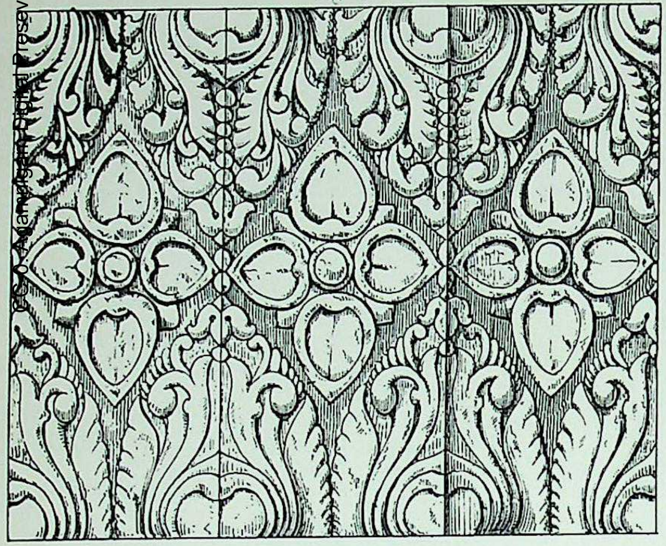
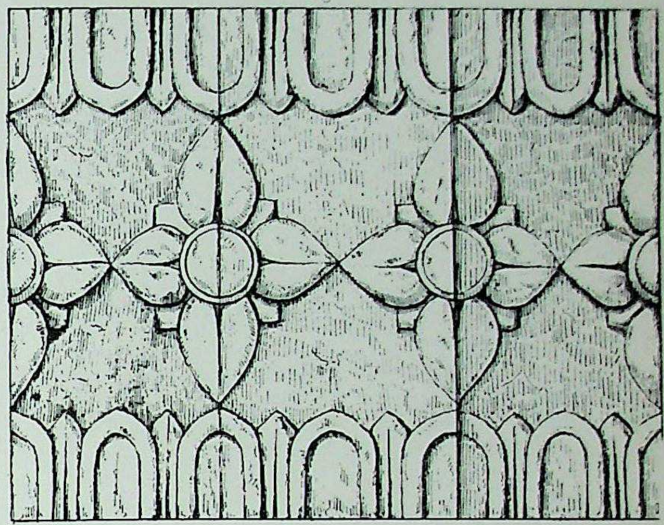


Fig 3



Scale of Figs 1 2 & 3

0 1" 2" 3" 4" 5" 6"

Scale of Fig 4

3" 6" 9" 12"

PANEL & ORNAMENTS ON PIERS RÂMASVÂMI TEMPLE, KUMBAKONAM TANJORE DISTRICT

PLATES II AND III.

CARVED PANELS ON THE SHRINE PILASTERS, NÂGÊSWARA TEMPLE. KUMBAKONAM (II), AND ON THE PANCHANÂDÊS'VARA TEMPLE (III), TIRUVÂDI, TANJORE DISTRICT.

THE figures on these two plates are from different temples, and illustrate Chôla work of the 11th century. The pilasters are those on the walls of the shrines. The carving is placed underneath the capitals. The figures on Plate III have capitals similar to those shown on Plate II.

A. REA.

Fig. 1.

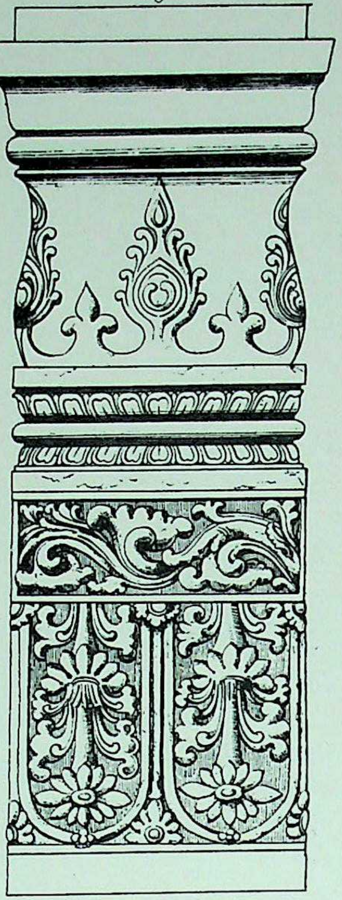


Fig. 2

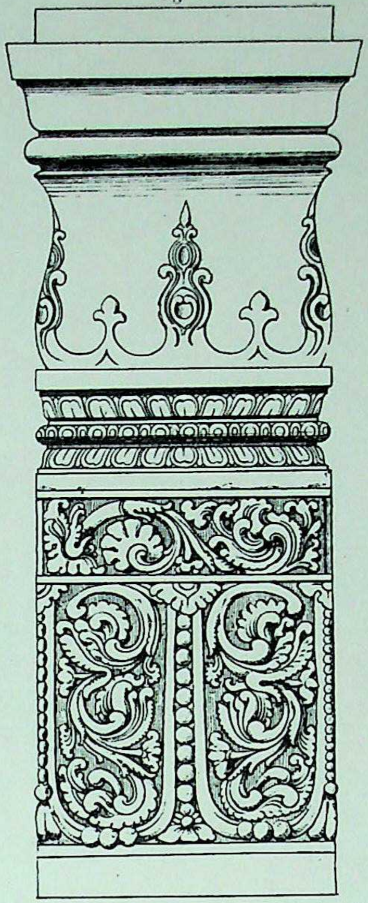
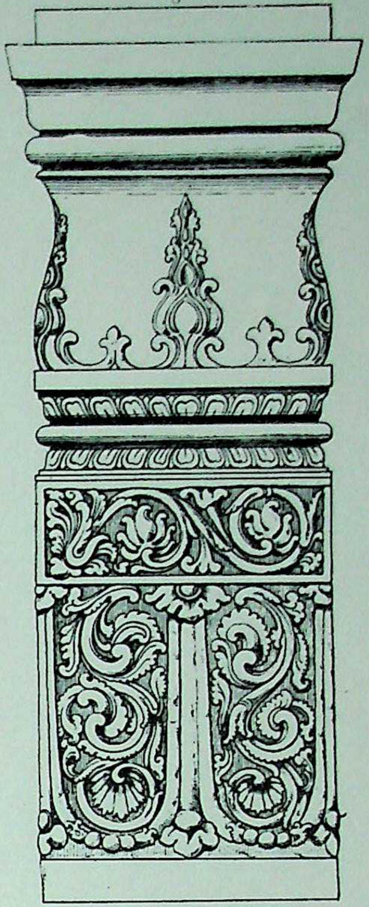


Fig. 3



Scale.

Inches. 12″ 11″ 10″ 9″ 8″ 7″ 6″ 5″ 4″ 3″ 2″ 1″ 1′ Foot.

CARVED PANELS ON THE SHRINE PILASTERS, NÂGÊSVARA TEMPLE, KUMBAKONAM, TANJORE DISTRICT

GOVT. ARCHÆOLOGICAL SURVEY OF SOUTHERN INDIA, No. 890.

Fig. 1

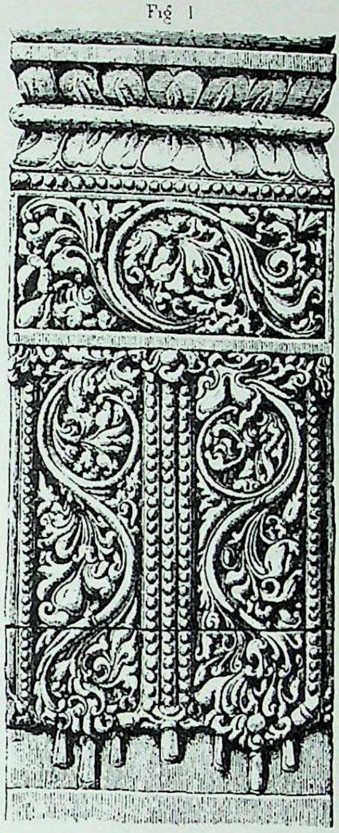


Fig. 2.

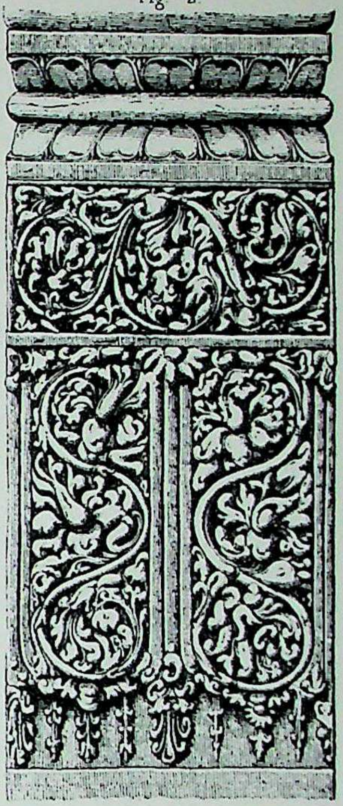


Fig. 4

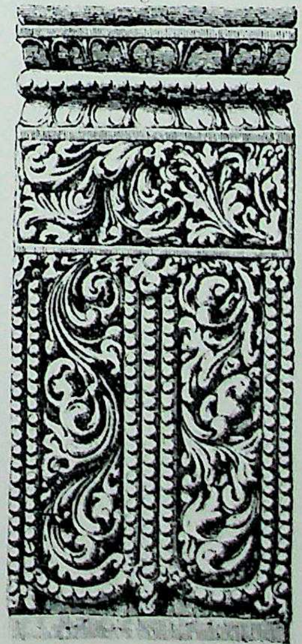


Fig. 3

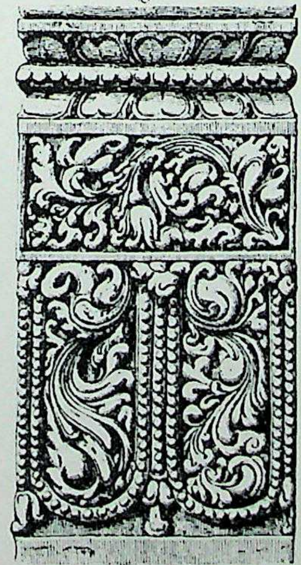


Fig. 5

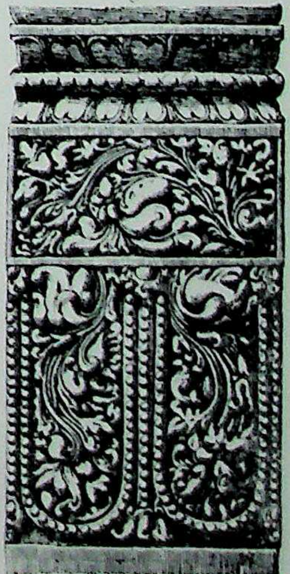
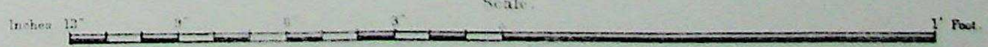


Photo-etching.

Survey of India Offices, Calcutta, June 1893.

Scale.



CARVED PANELS ON THE SHRINE PILASTERS, PANCHANADESVARA TEMPLE, TIRUVADI, TANJORE DISTRICT

PLATES IV AND V.

MIHRAB FROM RUINED MOSQUE AT ERANDOL, KHANDESH.

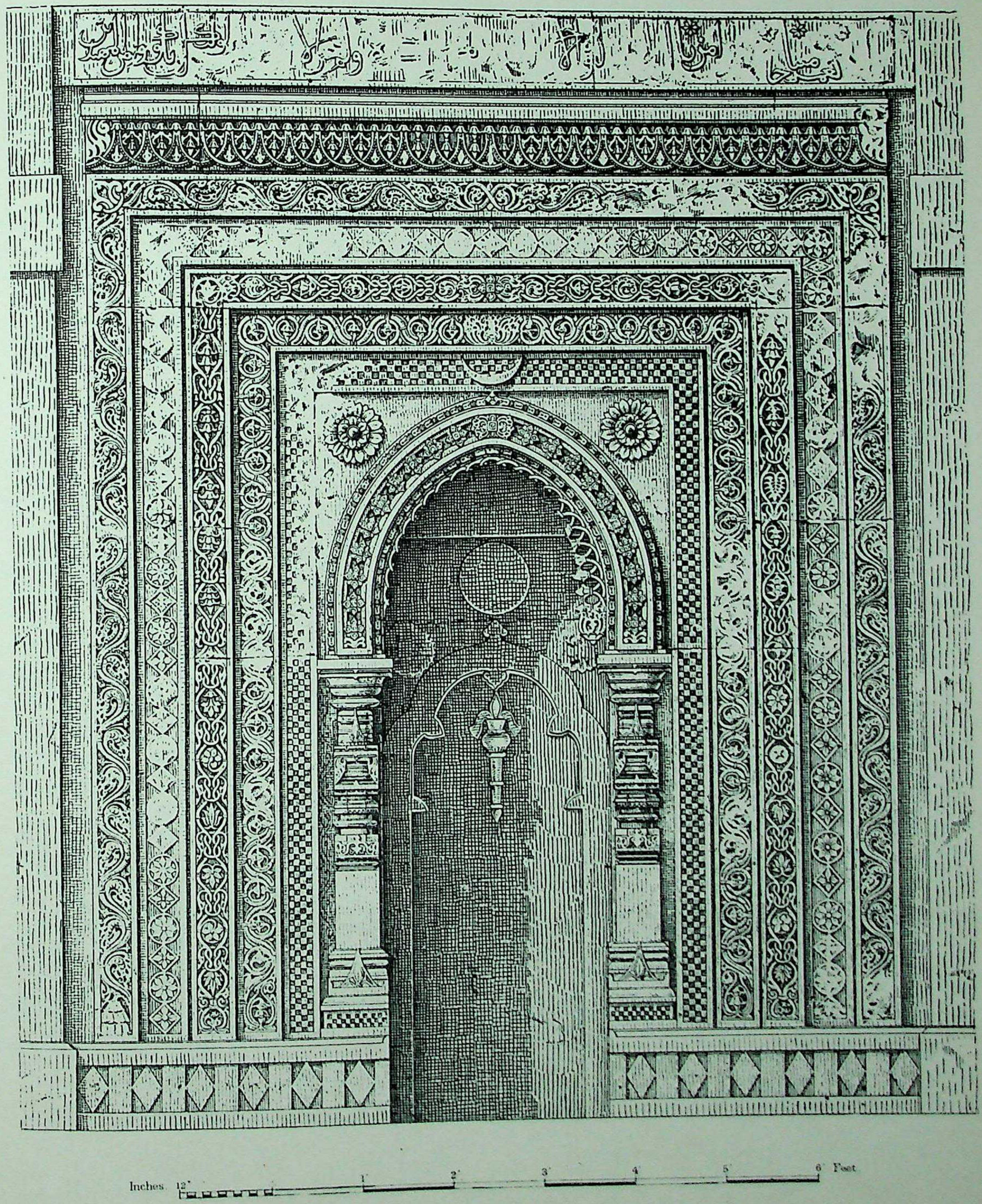
PLATE IV gives an elevation of a carved stone *mihrab* from the old ruined mosque known as the Pāndawāchā wādā at Erandol, in Khandesh. It is one of several, built into the back wall of the mosque, which are partly covered with the debris of the ruined building. It will be seen that the details are Hindu; and more, the general design of the whole is Hindu—that of a Hindu doorway adapted to its present use. The arch is the only foreign element in it. The very pilasters which uphold the arch belong to the original doorway, and were generally placed about the middle of the bands of moulding which run up either side, occupying the place of the middle moulding on this plate. Notwithstanding their damaged and weatherworn condition, these *mihrabs* are very handsome, one of the most pleasing features being the delicate fringe of hanging buds around the soffits of the arches. This is seen better on Plate V. The two strings of lotus buds running round the arch is a very favourite Hindu ornament, and is generally found running up the angular recesses of doorways between the broader bands of moulding. The upper and the lower of the three bands on Plate V are also very common Hindu ornament.

The mosque was built partly of pillars and other materials from a former Hindu temple; and, while much of the material was used over again for its original purpose, the sculptured figures with their delicate and minute ornament were relegated to the baser use of "filling in" for the great walls of the court-yard, and from sundry chinks and breaches they may be seen peering out pleadingly from their inglorious positions. Just as temple pillars, ceilings, beams, and other members have been used wholesale in the construction of many mosques, so would the elaborately sculptured doorways have been used too for the *mihrabs*, had they not been so covered with figure sculpture. This, to the iconoclast Musalman, was intolerable. He knocked off the few figures from the pillars before using them, but to have done so with those on the door frames would have rendered them anything but presentable objects as settings to their *mihrabs*—the chief features of interest and honour in a mosque. Hence they almost invariably had them made to order, the workmen—Hindus—knowing of no other suitable design than that of their own temple doorways minus the figures.

The boss on Plate V is from a niche in the wall of the colonnade of the mosque. Some very fine bosses of this kind are found, carved in high relief, in the niches of some of the minars of the Ahmedabad mosques. It is needless, almost, to say that they are Hindu, too.

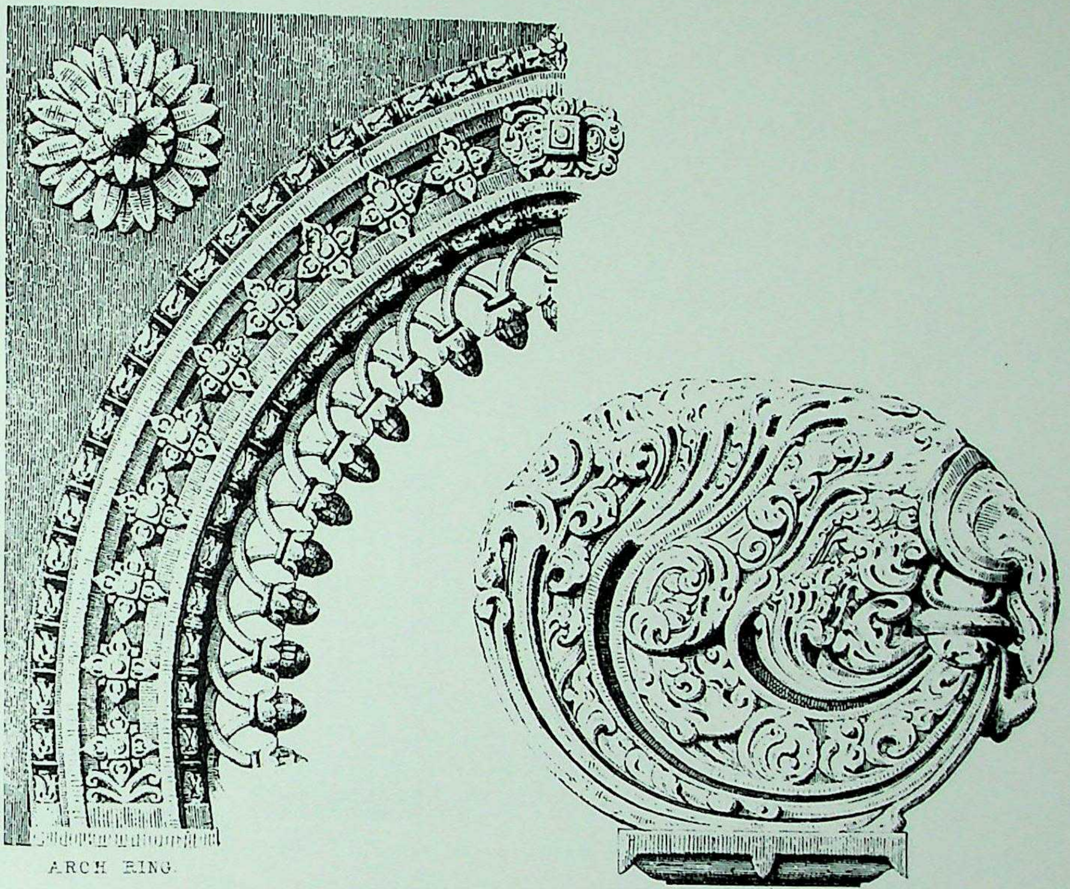
H. COUSENS.

GOVT ARCHÆOLOGICAL SURVEY OF WESTERN INDIA, No. 1029.


Inches 12
1
2
3
4
5
6 Feet

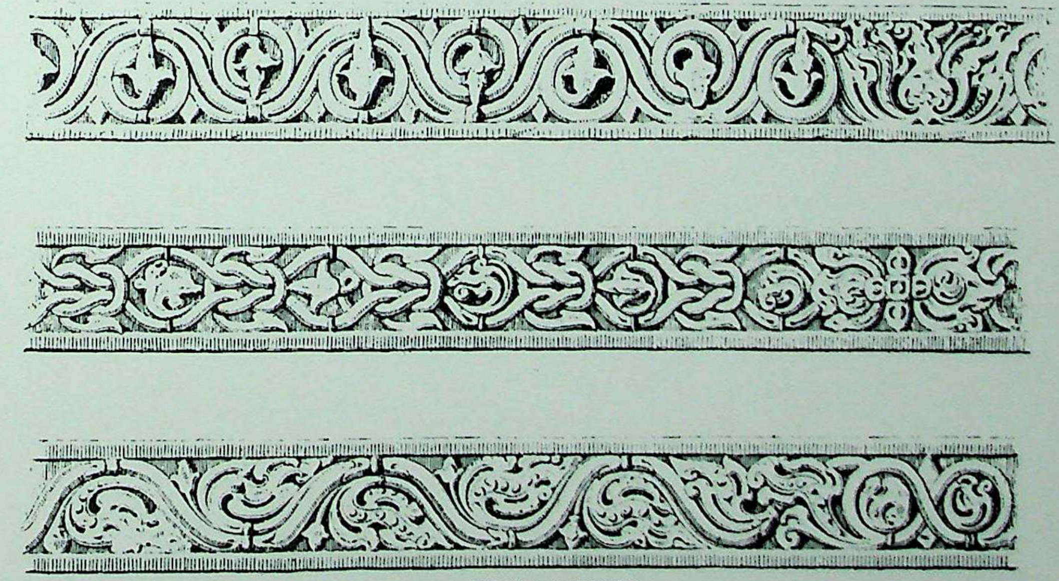
MIHRAB FROM RUINED MOSQUE AT ERANDOL, KHANDESH, BOMBAY

Survey of India Offices, Calcutta, July 1893.



ARCH RING.

BOSS.



STRING COURSES.

Scale.
Inches 12 9 6 3 0
1
2 Feet.

DETAILS FROM MIHRABS OF A RUINED MOSQUE AT ERANDOL, KHANDESH, BOMBAY.

Photo-etching.

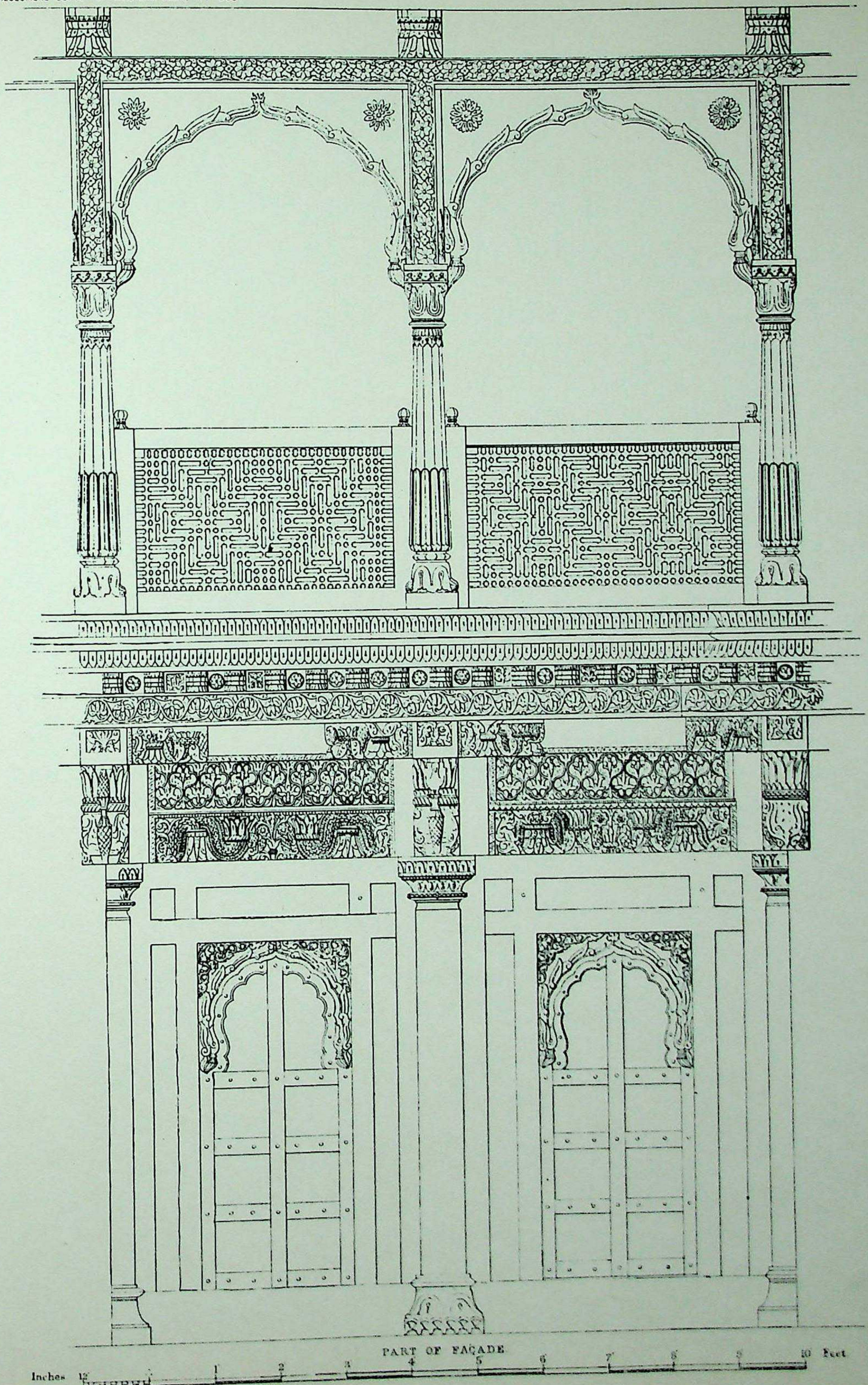
Survey of India Offices, Calcutta, July 1893.

PLATE VI.

PART OF FACADE IN WOOD CARVING FROM A HOUSE AT SRIGUNDA, AHMADNAGAR DISTRICT, BOMBAY.

THIS plate represents part of the same building as that illustrated in plates XII and XIII of the Technical Art Series for 1892, and the remarks on "Old Wood Carving" in the text accompanying those plates apply also to it.

Govt Archæological Survey of Western India, No 965.


PART OF FAÇADE
Inches 12
1
2
3
4
5
6
7
8
9
10 Feet

WOOD CARVING FROM A HOUSE AT SRIGUNDA, AHMADNAGAR DISTRICT, BOMBAY

PLATE VII.

DETAIL OF PATERA, JODH BAI'S PALACE, FATEHPUR SIKRI.

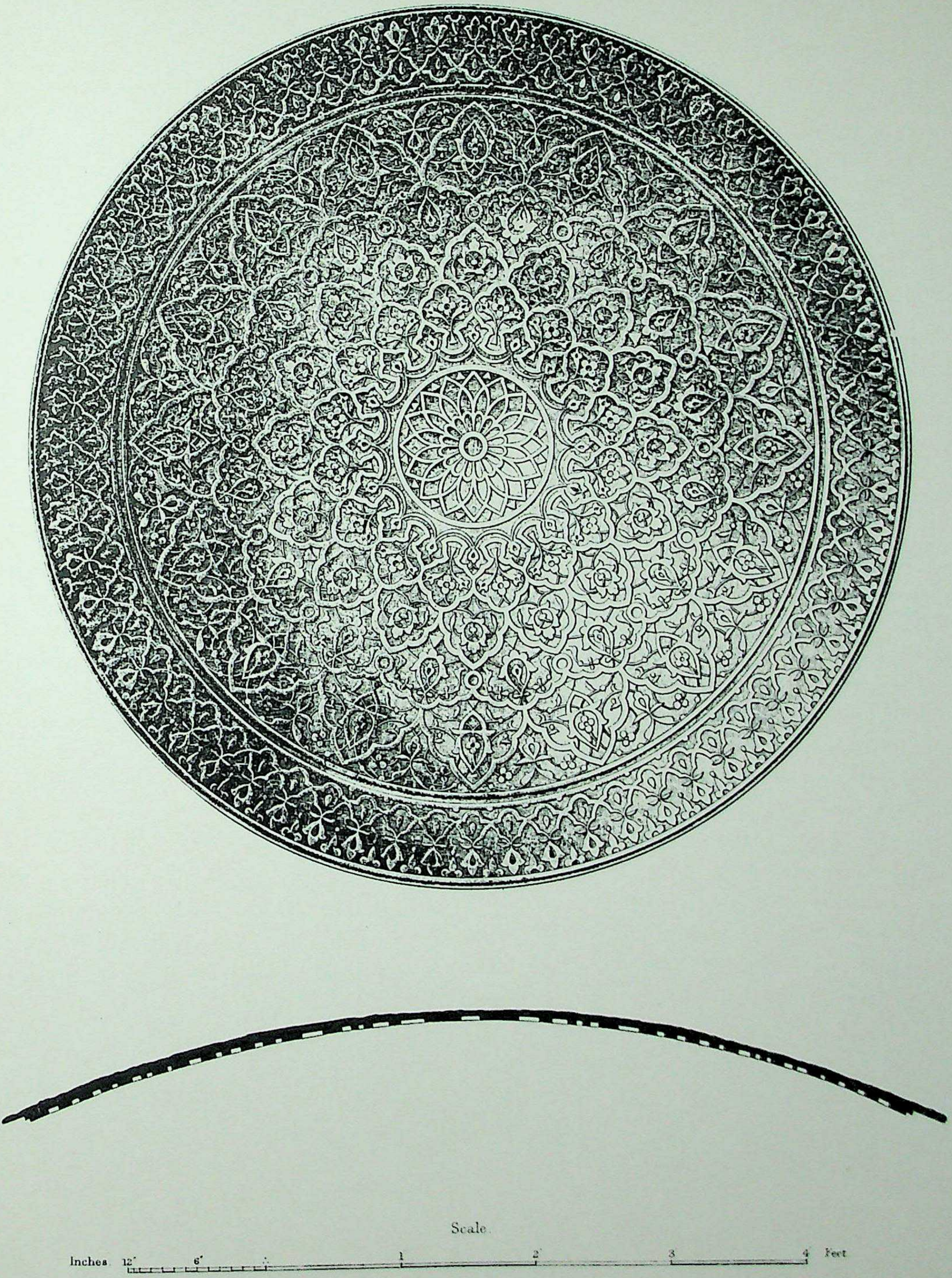
IN the volume for 1891 were published several plates illustrative of the Moghul Architecture of Fatehpur Sikri, a report on which by the Archæological Survey of India is now in the press. Plates VII to XII inclusive, tend further to illustrate the style, and are taken from the palace erected by Akbar for his chief queen, and now commonly and erroneously known as "Jodh Bai's Mahal". It is one of the earliest and largest of the buildings gracing the city and is built entirely of red sand stone quarried some few miles off. It is remarkable on account of the strong Hindu feeling pervading the whole design.

Externally it measures 215′ 0″ × 232′ 0″. Inside is a quadrangle 179′ 0′ × 162′ 0″ surrounded by suites of rooms 27′ 0″ in depth. At each angle is a double storied apartment covered by a dome and it is from the underside one of these that the beautiful medallion illustrated on Plate VII is taken. It is executed in plaster, and measures 7′ 3″ in diameter. In section it is concave, and the ornament is in relief. The field is charmingly carved with an elaborate and very delicate scroll intermingled with leaves and flowers in low relief, and upon this ground a second and bolder pattern reposes. It is in four tiers and each becomes smaller as it approaches the centre of the medallion in which is a small kaleidoscope-like rosette. Around the outer tier is a border 8½″ in width richly carved with floral ornament. The design savours a good deal of Moorish work.

The style of decoration is frequently met with at Fatehpur Sikri. Judging from unfinished portions one comes across in some of the buildings, the patterns appear to have been sketched upon the finished face of the plaster when dry and then very carefully carved afterwards. In many instances they have been painted in rich and brilliant colours. This was probably the case with the one before us, but unfortunately, like much of the other decoration in the building, it has been only too liberally coated with whitewash.

ED. W. SMITH.

Gov.t Archæological Survey N. W. Provinces & Oudh, No 353.


Scale.
Inches 12" 6" 0 1 2 3 4 Feet

DETAIL OF PATERA, JODH BAI'S PALACE, FATEHPUR SIKRI.

PLATES VIII AND IX.

DETAIL OF ORNAMENTED JALI-BALUSTRADES AND PANEL, JODH BAI'S PALACE, FATEHPUR SIKRI.

THESE two plates afford samples of the *Jâlî* or stone screen-work, for which the city of Fatehpur Sikri is so notorious.

Figs. 1 and 7 on Plate VIII, and Figs. 1, 2, 3 on Plate IX, are balustrades around the small-domed pavilions in front of the upper floor rooms, upon which the royal occupants of the palace were wont to sit and lounge in the cool of the evening. In height they are 1′ 6″ and in thickness 3″.

Fig. 8 is a stone panel, 2′ 7″ in length by 1′ 5$\frac{1}{2}$″ in width, projecting about half an inch from the gable wall, on the interior side, of one of the long rooms on the second floor roofed by blue glazed tiles. The decoration is in relief and projects about $\frac{3}{8}$th of an inch from the face of the panel. In the centre is a well-cut circular and sunk leaf rosette in two tiers encircled by a small chaplet of beads, beyond which is a broad belt of filigree ornamentation, whilst the corners of the panel are filled up with leafage. The design could be utilized by workers in brass, wood-carvers, and gold and silver-smiths.

ED. W. SMITH.

Fig. 1.

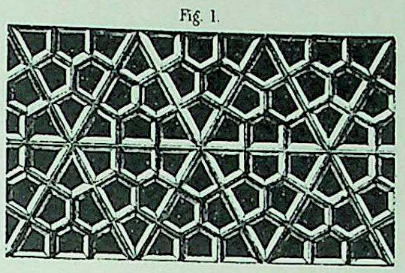


Fig. 2.

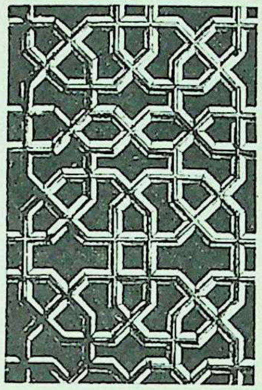


Fig. 5.

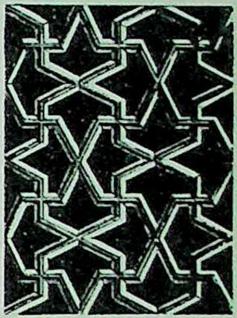


Fig. 8.

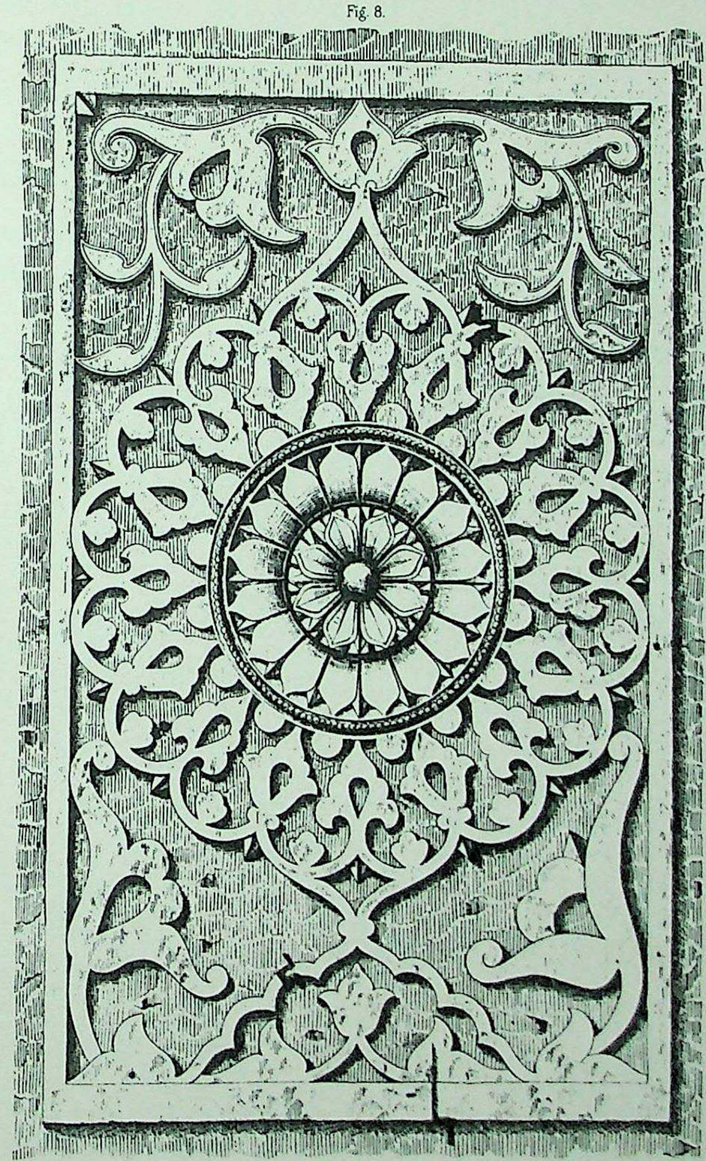


Fig. 3.

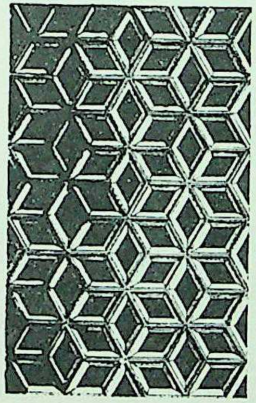


Fig 6.

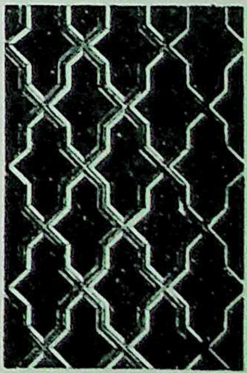


Fig. 4.

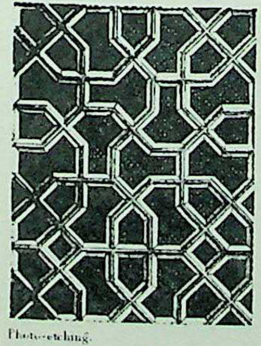


Fig. 7.

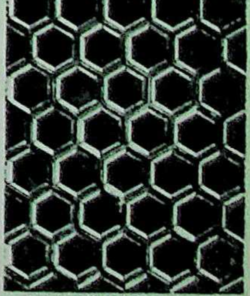
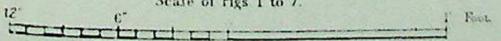


Photo-etching.

Survey of India Offices, Calcutta, August 1893

Scale of Figs 1 to 7.



Scale of Fig 8

12"
9"
6"
3"
1' Foot.

DETAIL OF ORNAMENTED PANEL AND OF JALI BALUSTRADES. JODH BAIS PALACE. FATEHPUR SIKRI.

PLATE IX.

DETAILS OF JALI-BALUSTRADE AND SCREEN WORK IN HAWA MAHAL, JODH BAI'S PALACE, FATEHPUR SIKRI.

PLATE IX (Figs. 4, 5, 6, 7, 8) exemplifies the screens enclosing the sides of the Hawa Mahal. The patterns are pierced out of solid slabs of stone, 2½″ in thickness and of various sizes, according to the intercolumniation of the piers. Some measure 7′ 6″ in height by 5′ 8″ in width. The bars are flat in section and are chamfered both sides and measure ¾″ in thickness. The piers are surmounted by bracket capitals and at the top the screens are shaped to fit in the space between brackets. In that shown in Fig. 7 two small birds have been introduced, which, strange to say, have escaped the hands of the inconoclasts, who, after Akbar's demise, did so much damage to the carvings in the Turkish Sultana's house and elsewhere.

ED. W. SMITH.

PLATE IX.

Fig. 4.

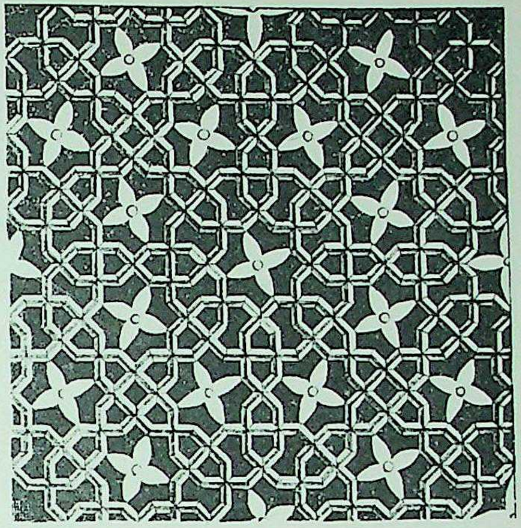


Fig. 1

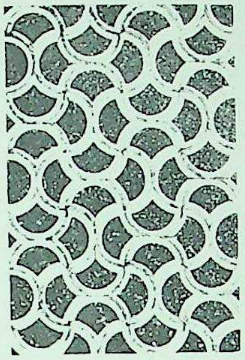


Fig. 2

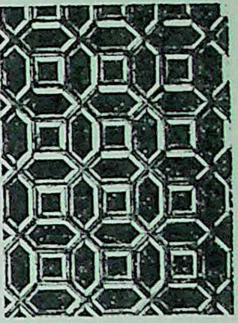


Fig. 5

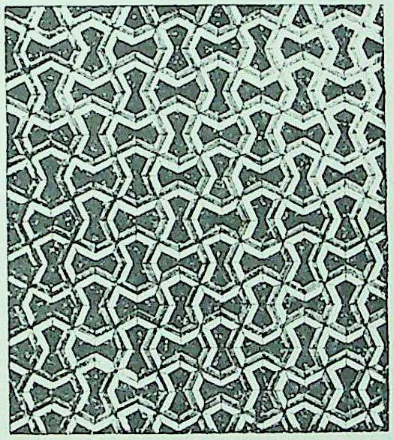


Fig. 3

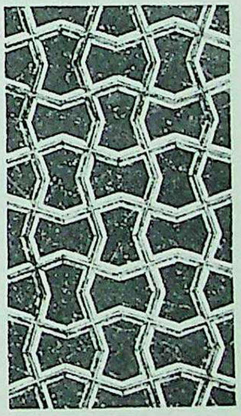


Fig. 6

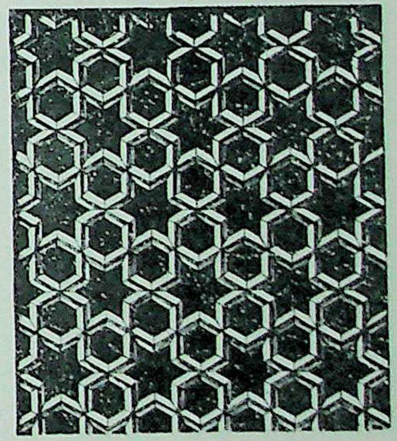


Fig. 7

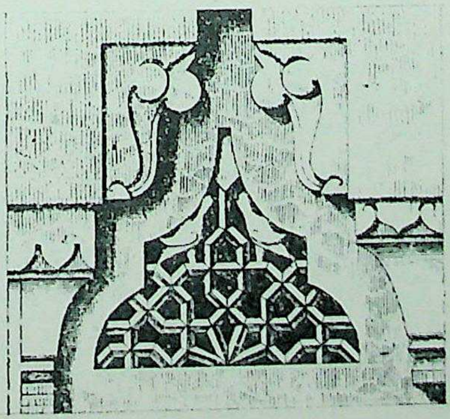
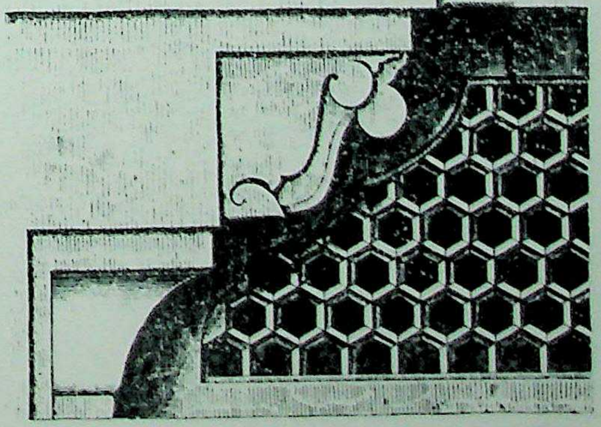
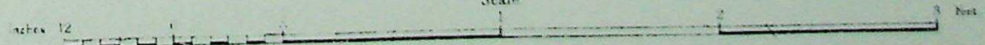


Fig. 8



Scale



FIGS. 1 TO 3. DETAIL OF JALI BALUSTRADE. FIGS. 4 TO 8. DETAIL OF SCREEN WORK IN HARVA MAHAL JODH BAIS PALACE. FATEHPUR SIKRI.

PLATE X.

DETAIL OF WINDOW, JODH BAI'S PALACE, FATEHPUR SIKRI.

PLATE X illustrates one of the screened windows from the rooms in the second floor. It measures 4′ 7″ across and is 6′ 8″ in height. It is divided into six compartments by a central mullion and transomes, and each is filled in with open reticulated stone tracery.

The designs in the two middle compartments assimilate and are common, but those in the upper and lower are not often met with. The glare of the sun is prevented from entering the chamber by a deep drip stone over the top of the window supported on small serpent brackets. The parapet is carved in imitation of an embattlement.

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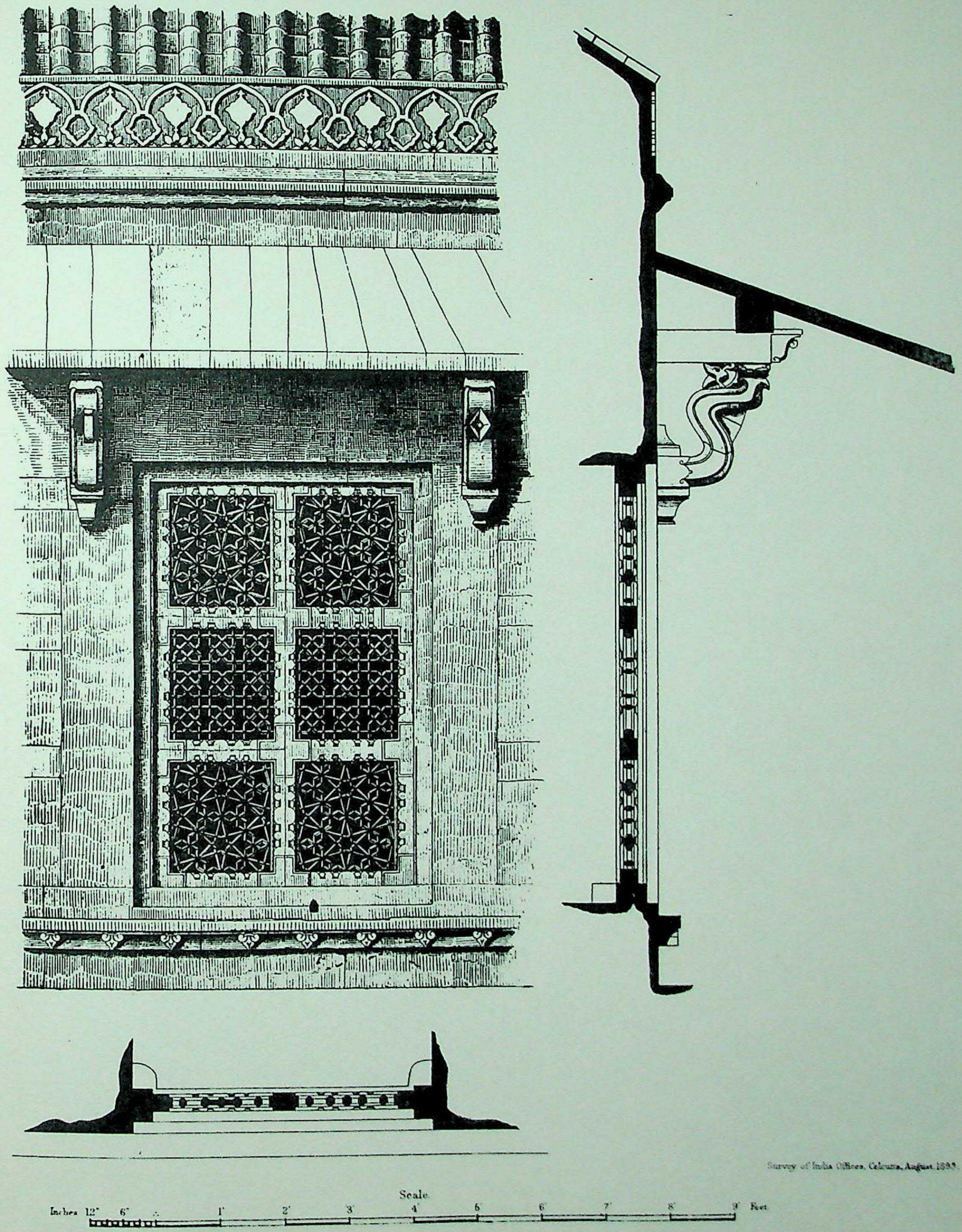
Gov T Archæological Survey of N.W. Provinces and Oudh, N° 355.

PLATE X.


Scale.
Inches 12" 6" 0 1' 2' 3' 4' 6' 6' 7' 8' 9' Feet

Survey of India Offices, Calcutta, August 1893.

DETAIL OF WINDOW. JODH BAI'S PALACE, FATEHPUR SIKRI.

PLATE XI.

DETAIL OF SHAFT IN RECEPTION ROOM, JODH BAI'S PALACE, FATEHPUR SIKRI.

DETAILS of the columns and pilasters in the hall into which the balconette illustrated on Plate XII looks are exemplified here.

From the plan shown at the bottom of the drawing it will be seen they are of a broken square form, a shape frequently used by Hindus in their buildings, and the one adopted for the columns throughout the Great Mosque in the enclosure of which lies buried Sheikh Salim Chishti owing to whose influence, it is said, Akbar came to build Fatehpur Sikri. The shafts are bound at intervals by projecting bands variously ornamented with half-lotus rosettes, small lozenges and pellets, etc., whilst upon the front faces one sees the bell and chain, a most favourite symbolical ornament amongst Hindus and found carved upon their earliest edifices. At top and bottom the shafts break forward and are moulded, panelled, and carved with crude angle volutes and urns. The bases are moulded and stand upon a plinth, whilst a plain capital crowns the top of the column and upon it rests a heavy three-armed bracket supporting stone beams carrying the stone ceiling above. The brackets are richly carved and are seen in both front and side elevation upon the drawing. Sections giving the various projections of the mouldings, depth of carving, etc., are shown in hatched lines upon the elevations.

ED. W. SMITH.

Gov^t Archæological Survey of N. W. Provinces & Oudh N^o 332.

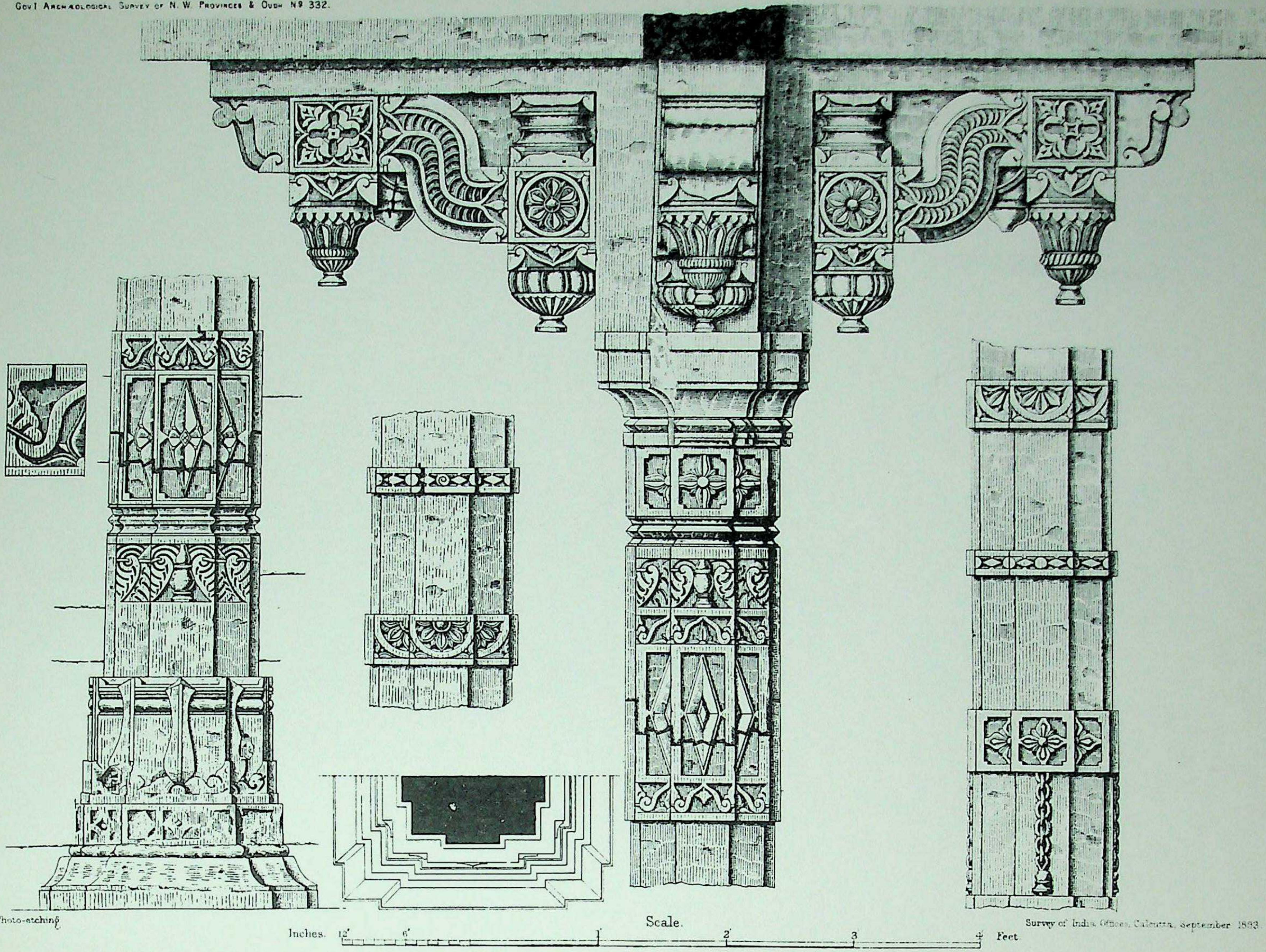

Scale.
Inches. 12
6
1
2
3
4 Feet

Photo-etching. Survey of India Offices, Calcutta, September 1893.

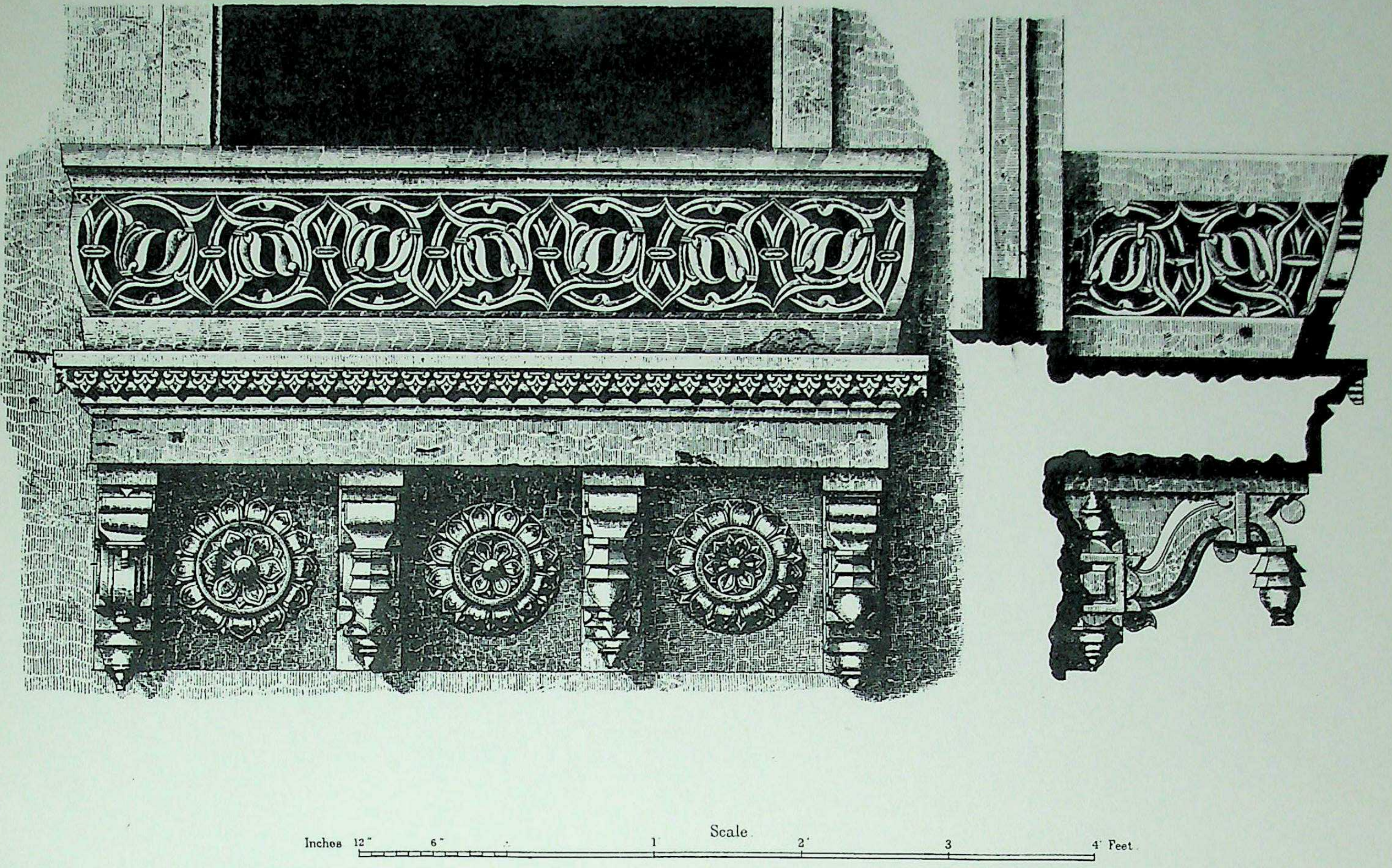
DETAIL OF SHAFT IN RECEPTION ROOM, JODH BAI'S PALACE, FATEHPUR SIKRI.

PLATE XII.

DETAIL OF BALCONETTE, JODH BAI'S PALACE, FATEHPUR SIKRI.

PLATE XII is a detail of one of the balconettes in front of the window openings in the mezzanine floor—traditionally used as a dining room—looking into the hall or reception room on the north side of the palace. In length it measures 6′ 0″ and projects 2′ 6″ from the face of the wall. The sides are slightly curved and composed of open scroll tracery 2″ in thickness, surrounded by a moulded capping, and stop flush against the walls. The floor is of stone and 10″ in depth and is moulded and carved around the outer sides and carried on two pairs of rich brackets 1′ 7″ in depth and 5″ in thickness. The soffit is quite plain, but the back is ornamented with three beautifully carved lotus rosettes in bold relief.

ED. W. SMITH.

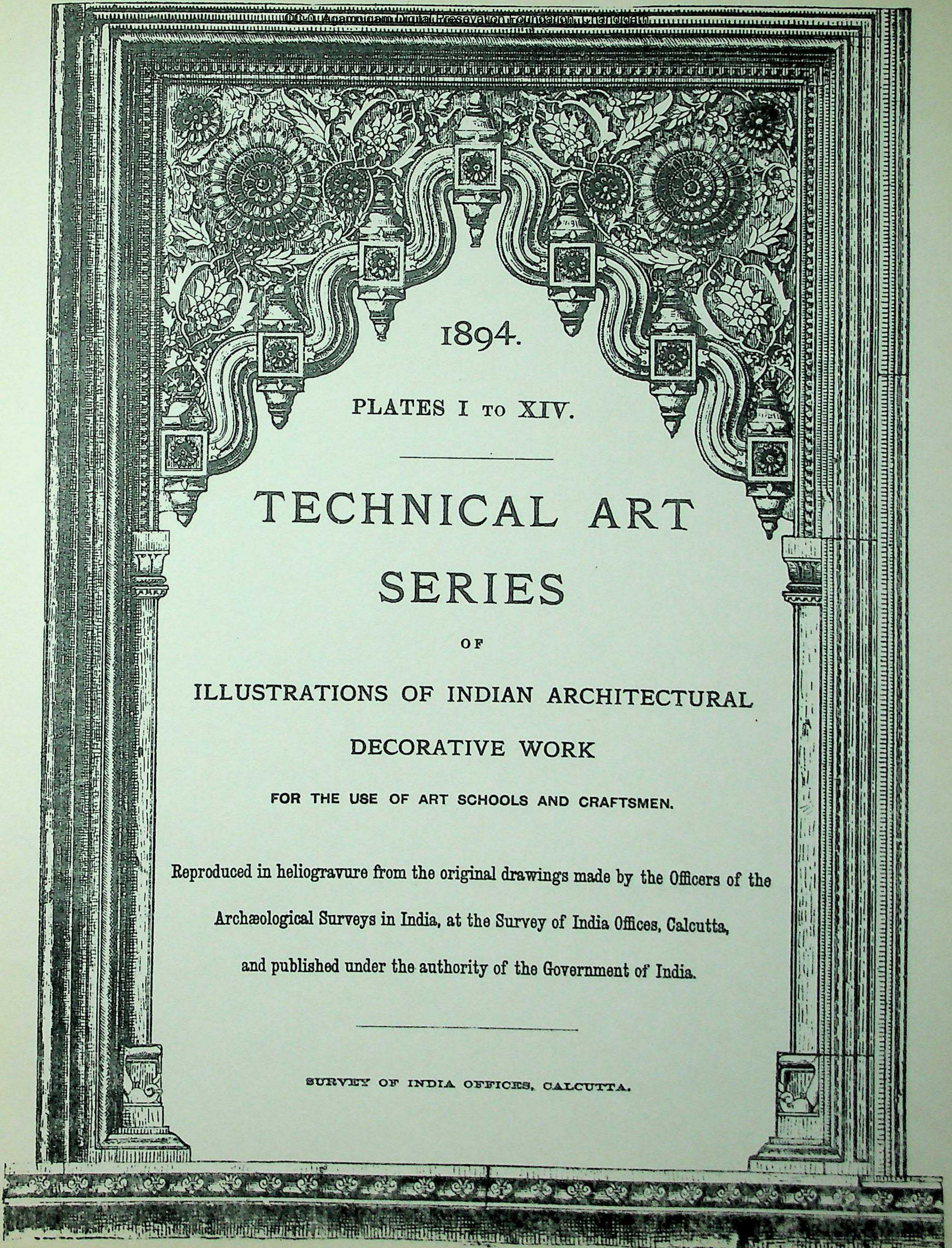

Scale.
Inches 12"
6"
1'
2'
3
4' Feet.

DETAIL OF BALCONETTE, JODH BAI'S PALACE, FATEHPUR SIKRI.

Photo-etching.

Survey of India Offices, Calcutta, September 1893.

CC-0. Agamnigam Digital Preservation Foundation, Chandigarh



1894.

PLATES I TO XIV.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the
Archæological Surveys in India, at the Survey of India Offices, Calcutta,
and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

I.—Koft or Damascene Work.

II.—Fatehpûr Sîkrî: "Jodh Bai's" Palace. Ceiling over the North-West Angle Room on the Ground Floor.

III.—Fatehpûr Sîkrî: Bîr Bal's House. Details of Dado Panels.

IV.—Fatehpûr Sîkrî: Bîr Bal's House. Detail of Friezes around the interior of the Domes over the Upper Floor Rooms and of the Bases beneath the Pilasters.

V.—Fatehpûr Sîkrî: Bîr Bal's House. Detail of Panelling from Pilasters.

VI.—Fatehpûr Sîkrî: Bîr Bal's House. The North Porch.—Detail of Archway over the Entrance.

VII.—Fatehpûr Sîkrî: Bîr Bal's House. Detail of Wainscotted Walls in the Upper Rooms.

VIII & IX.—Decorative Ornaments from an Ancient Jaina Stupa at Mathurâ.

X.—Ceiling Panels from the Temple of Ambarnath, near Kalyan, Bombay.

XI.—Portion of a Carved Wood Ceiling Panel, Bijapur.

XII.—Stone Idol-Couch from a Temple at Banavasi. N. Kanara.

XIII.—Pier in the Subrahmanya Shrine, Brahadêsvara Temple, Tanjore.

XIV.—Pier in the Thousand-Pillared Mandapa, Minakshi Amman Temple, Madura.

TECHNICAL ART SERIES OF 1894.

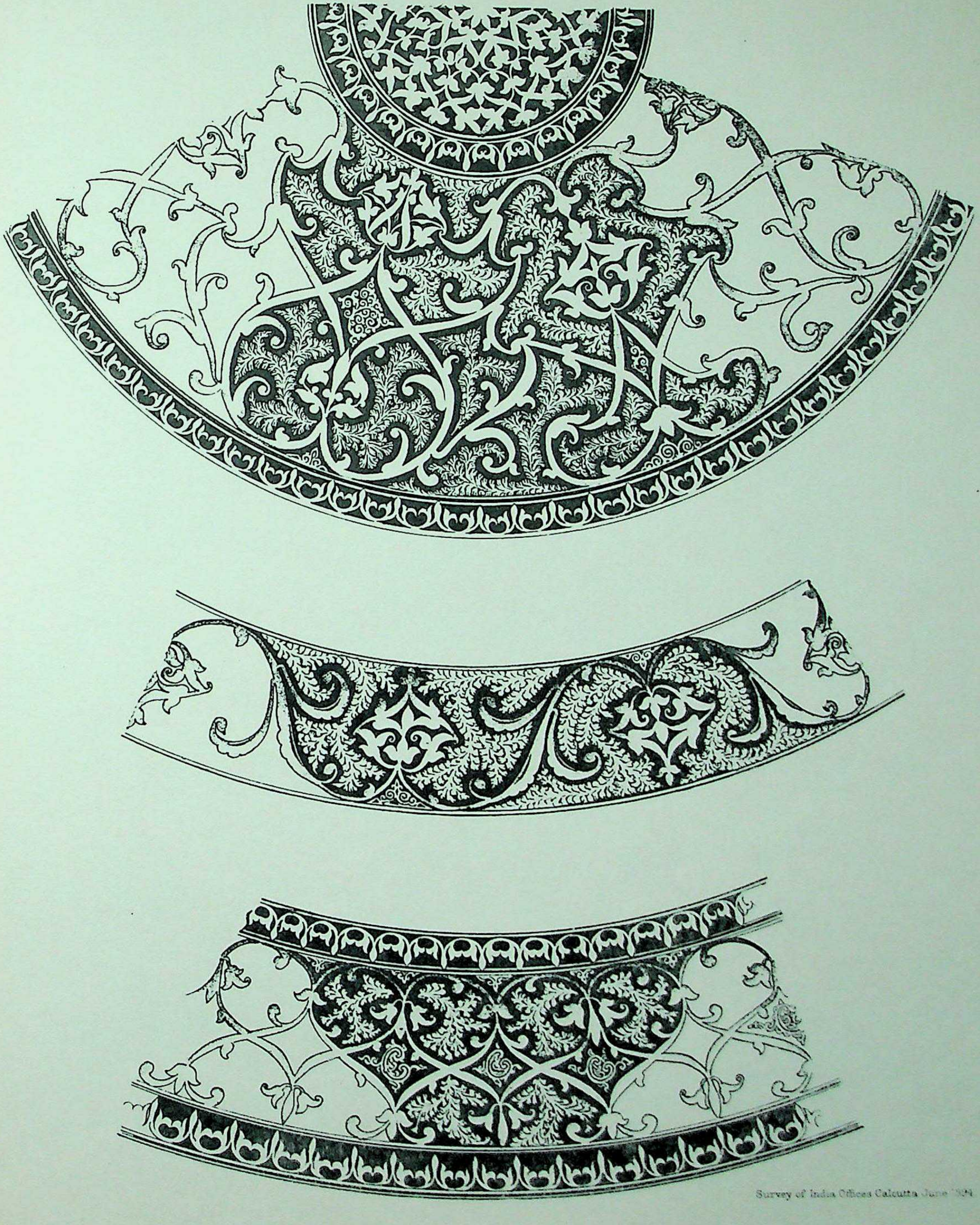
PLATE I.

KOFT OR DAMASCENE WORK.

THIS art industry is not in a condition altogether satisfactory: it might be improved in its application, and in its method, especially by the restoration of the more ancient method of incised or deeply laid damascene. The Punjab work is all made by simply scratching the pattern on a steel or blued-iron surface, and then the fine gold wire which is caught and held in place for a short length at a time by the rough edges of the style scratch, is first hammered in (koft) and then rubbed down with an agate point (mohari). The work is of foreign (probably Persian) origin, and became popular in the Punjab, especially at Lahore, when the demand for inlaid arms and armour for the Sikh nobility was at its height, but the art seems to have been introduced long before that period, *viz.*, in Mahomedan times. The best workmen came from Kabul and beyond, and settled at Lahore, and a few of the class still remain, their work being superior both in taste and execution to that of Gujrat or Sialkot. Indeed, they only want to meet with encouragement in the way of good ancient models to copy or take ideas from, to produce excellent work. The modern workers, both at Gujrat and Sialkot, are injured by the want of some reasonable purpose to which to apply their art. At present they snatch at every European article, however worthless, in the shape of ornament, inkstand or platter to copy. Moreover the habit of bargaining and the beating down of prices compels the men to a cheap and superficial sort of work in which the gold is inferior and lightly applied and the design wanting in character, and too diffuse.

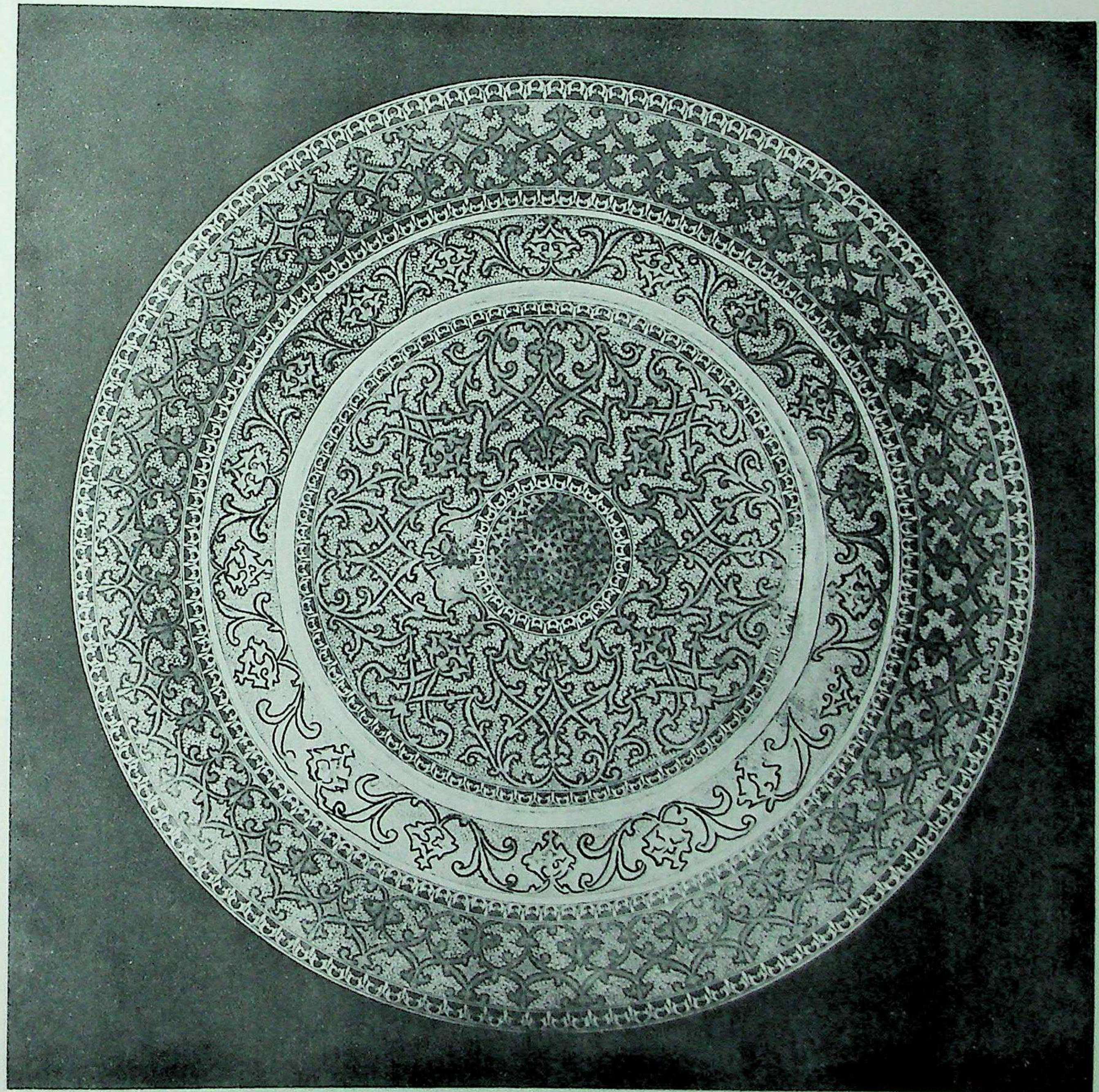
B. H. B.-P.

PLATE I.



Survey of India Offices Calcutta June '94

DETAILS OF ORNAMENT FULL SCALE



SALVER INLAID GOLD & SILVER ON STEEL GROUND, KOFT WORK FROM KOTLI LOHARAN, PUNJAB

Scale one-half

TECHNICAL ART SERIES, 1894.

PLATE II.

FATHPÛR SÎKRÎ : "JODH BAI'S" PALACE.

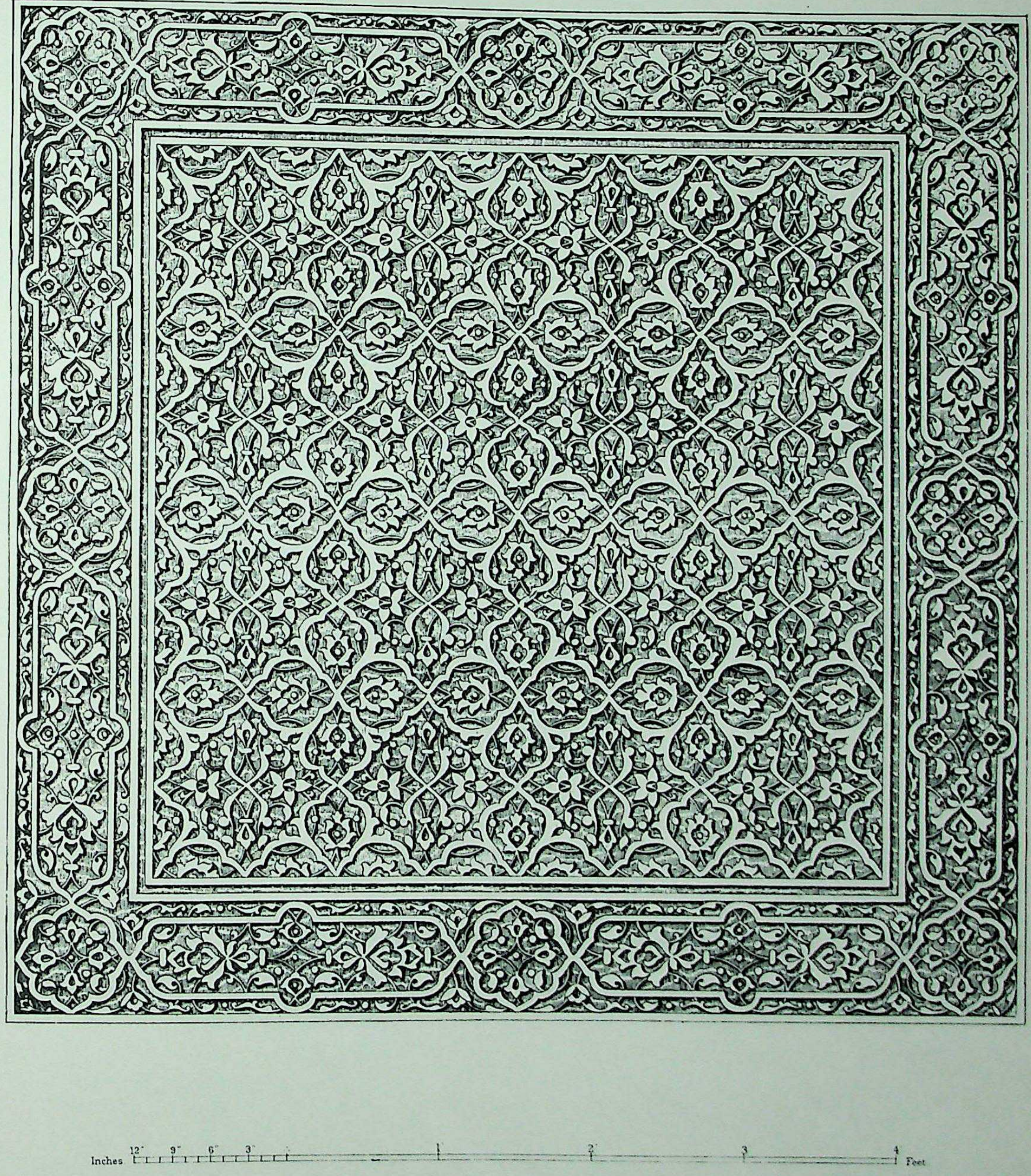
CEILING OVER THE NORTH-WEST ANGLE ROOM ON THE GROUND FLOOR.

IN Parts for 1891 and 1893 of the Technical Art Series, several plates illustrative of the Moghal Architecture of Fathpûr Sîkrî appeared ; and the plates we now give, numbered from II to VII, still further tend to illustrate the style. Those numbered from VII to XII of the part for 1893 were taken from "Jodh Bai's" palace, one of the earliest and largest of the numerous buildings adorning the city ; which will ever be associated with the name of the great Akbar. Plate II of this year's issue is from the same residence, and it should be studied along with Plate VII of last year's part, which shows a medallion from one of the upper chambers standing at the angles of the court-yard. It represents the centre-piece of the ceiling in the room below that from which the medallion was taken. It measures about 6′ 7″ each way, but is not quite square. Like the medallion it is in stucco, and the pattern was first carefully drawn on the finished face of the plaster, and afterwards cut out. The style of work is the same as that upon the medallion, but the design is different. The field is similarly worked with a delicate and dainty scroll, entwined in and out amongst leaves and flowers in low relief, and reposing upon this, and covering the entire face of the panel, is a diaper, the variegated lines of which predominate over those of the scroll beneath. Enclosing the panel is a 10″ border carved in keeping with the work within. All the carving is quite flat, but is raised one sixteenth to an eighth of an inch above the surface of the panel.

The design is of exceptional beauty and is admirably adapted for many purposes. Among artificers it could advantageously be used by gold and silver-smiths and workers in brass and iron, as well as for wood-carvers. The style of ornamentation was extensively used amongst the Moors in their best decorative works.

EDMD W. SMITH.

GOVT ARCHÆOLOGICAL SURVEY OF N.W. PROVINCES & OUDH Nº 323.



CEILING OVER THE NORTH-WEST ANGLE ROOM ON THE GROUND FLOOR, JODH BAIS PALACE, FATEHPUR SIKRI

Survey of India Offices, Calcutta, September 1894

TECHNICAL ART SERIES, 1894.

PLATE III.

FAṬHPÛR SÎKRÎ : BÎR BAL'S HOUSE.

DETAILS OF DADO PANELS.

PLATES III and IV are from Bîr Bal's house. Bîr Bal was a Hindû and one of Akbar's favourite ministers, and one of the few grandees who embraced the new religion his imperial master was founding. Setting aside "Jodh Bai's" palace, it is the largest domestic building now extant within the city walls. It is built of red sand-stone, and like the apartments set aside for the Turkish Sultâna, is carved both inside and out, from top to bottom. The dadoes are most elaborate pieces of work, and Plate III affords an example of some of the panels carved upon these. Nearly all are surrounded by broad borders of geometrical tracery, bounded at the sides by handsome pilasters (see Plate V) extending from floor to ceiling.

Fig. 1 is from the north-west upper floor room, and the panel measures 2′ 0″ by 4′ 1″. The design, as the drawing shows, is a geometric one, and the ground is studded with small leaf rosettes, the borders being carved with undulating scrolls. Great pains were taken by the carvers to avoid any harshness about the corners of their borders, and it is noticeable how well they succeeded. Figs. 2 and 3 are from the east ground-floor room, and like the panels shown on the preceding figure are wrought in red sand-stone.

The carving is raised about a quarter of an inch above the ground of the panel, and floral designs have taken the place of the geometrical ones. The borders are much narrower, and in lieu of the scroll a kind of "dog-tooth" ornament has been substituted.

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GOVT ARCHÆOLOGICAL SURVEY OF N.W. PROVINCES & OUDH Nos 290 & 293.

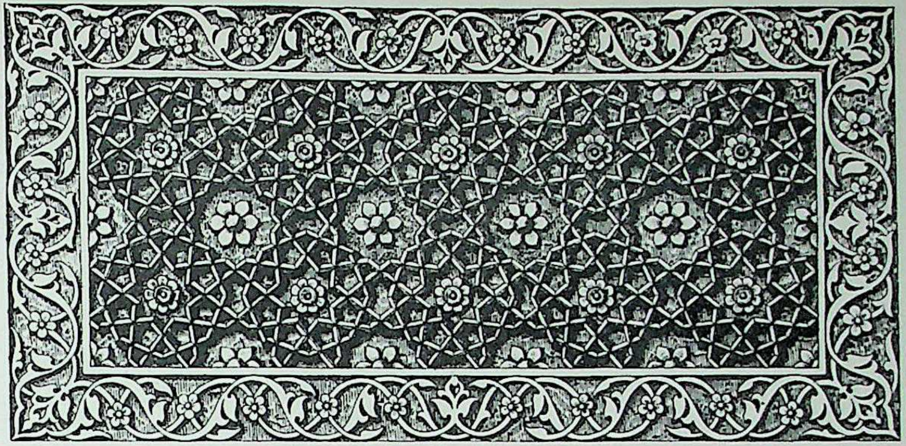


Fig. 1.

Inches
12"
9"
6"
3"
0
1'
2'
3'
Feet.

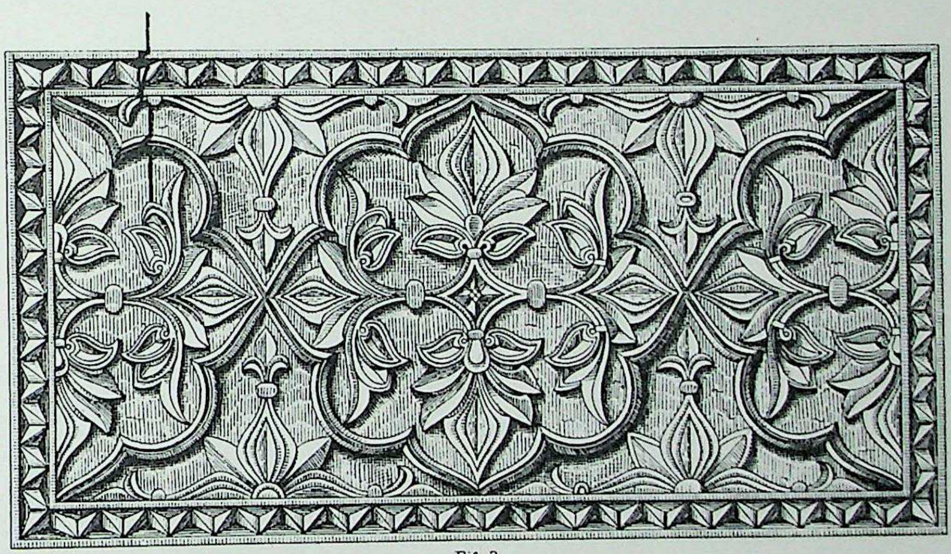


Fig. 2.

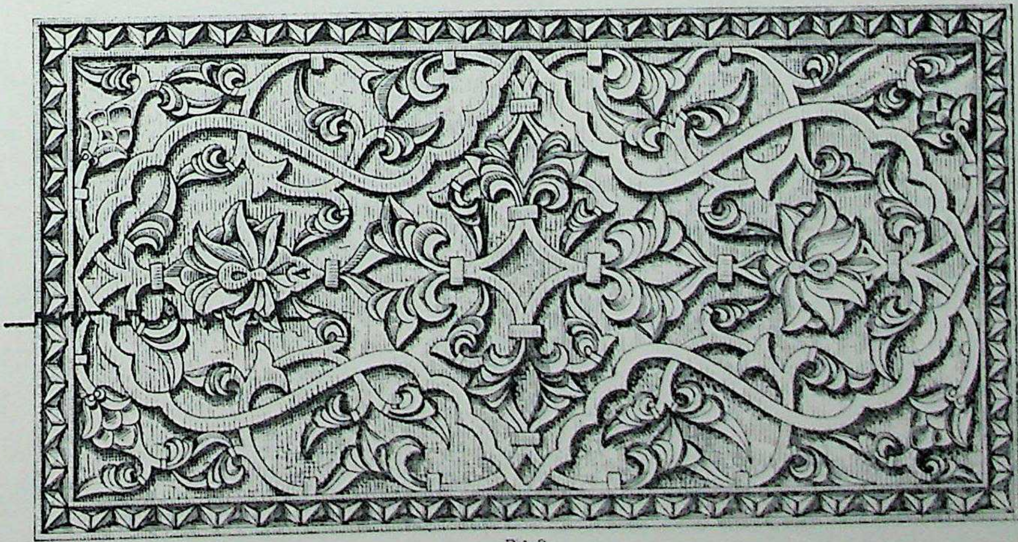
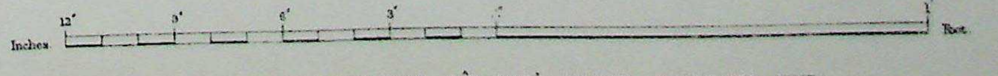


Fig. 3.


Inches
12"
9"
6"
3"
0
1'
Foot.

DETAIL OF DADO PANELS, BÎR BAL'S HOUSE, FATEHPUR SIKRI.

TECHNICAL ART SERIES, 1894.

PLATES IV AND V.

FATHPÛR SÎKRÎ: BÎR BAL'S HOUSE.

DETAIL OF FRIEZES AROUND THE INTERIOR OF THE DOMES OVER THE UPPER FLOOR ROOMS AND OF THE BASES BENEATH THE PILASTERS.

FIGURES 1 and 2 are details of the friezes round the interior of the domes surmounting the two rooms forming the upper storey of Bîr-Bal's house. As the illustrations show, they are carved with a raised repeating trefoil-shaped pattern of a V section upon a ground of flat leaf ornamentation. Although similar, the designs are not both alike: the one, Fig. 1, being used for the south-east room; and the other, Fig. 2, for the north-west apartment.

Figs. 3 and 4 illustrate the style of carving upon the bases beneath the pilasters, which throughout the house, both inside and out, are more or less elaborately carved. At the bottom of the base we find a half-lotus rosette, and this is surrounded by a deep undulating band of rich raised ornament terminated at the angles of the base in carved ear-ends. In all instances the plinth of the base is perfectly plain, but the top is worked with mouldings. These are of a crude contour, and the upper member is invariably carved with a row of plain vertical leaves. The shaft of the pilaster rests upon the top of these mouldings, but the mouldings form no part of the pilaster itself. The pilasters are richly sculptured and generally are divided into three parts by oblong panels (see Plate V) enclosed by spiral leaf-scrolls and foliated creepers.

In nearly all cases the designs of the panels are different, and many of them might be utilised to advantage by artizans and others in a number of ways. How varied they are will be seen from the examples given in Plate V.

EDMD. W. SMITH.

TECHNICAL ART SERIES - 1894.

PLATE IV.

GOVT ARCHÆOLOGICAL SURVEY OF N.W. PROVINCES & OUDH NOS 282 & 299.

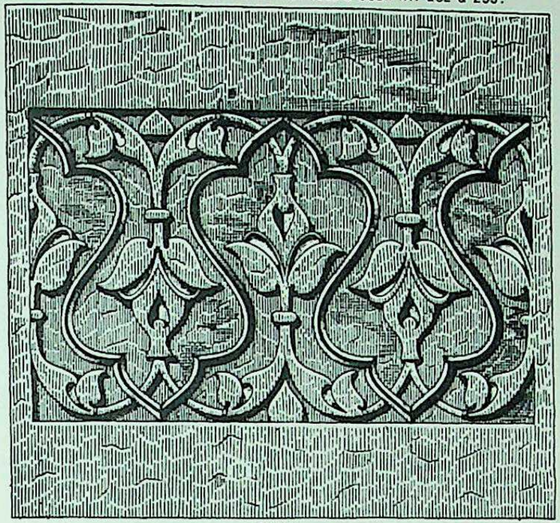


Fig 1.

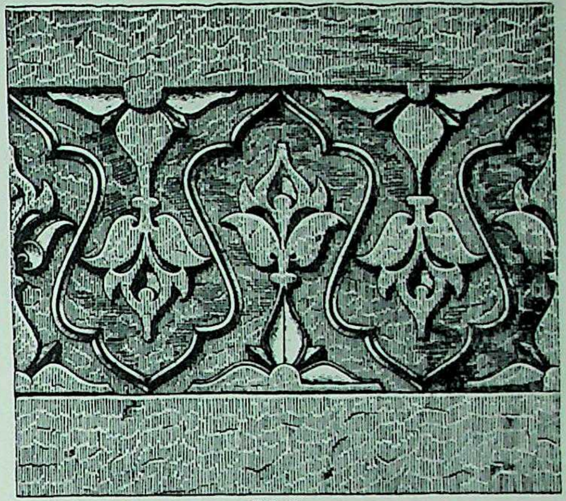


Fig 2.

Inches 12" 9" 6" 3" 1' Foot.

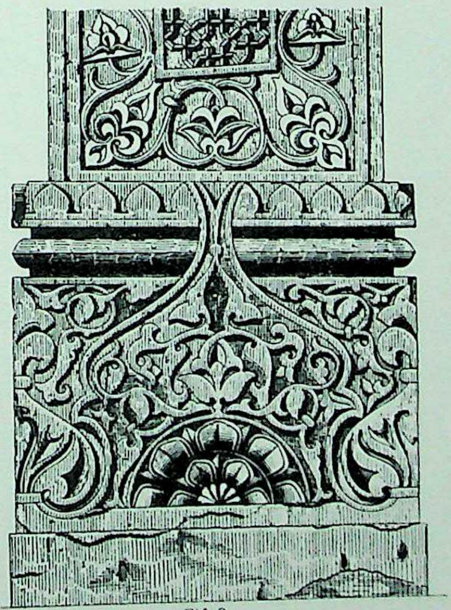


Fig. 3.

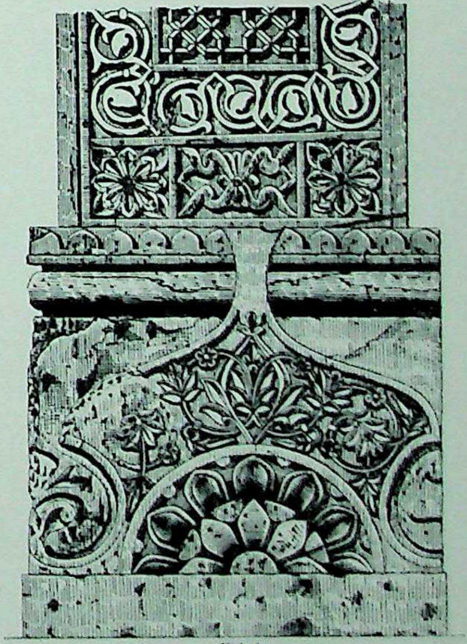


Fig 4

Inches 12" 9" 6" 3" Foot

FIGS. 1 & 2 - DETAIL OF FRIEZES AROUND INTERIOR OF THE DOME OVER THE UPPER FLOOR ROOMS.
FIGS. 3 & 4 - DETAIL OF BASES TO PILASTERS, BĪR BAL'S HOUSE, FATEHPŪR SĪKRĪ.

Photoetching.

Survey of India Offices, Calcutta, November 1894

GOVT. ARCHÆOLOGICAL SURVEY OF N.W. PROVINCES & OUDH Nos. 258 & 262.

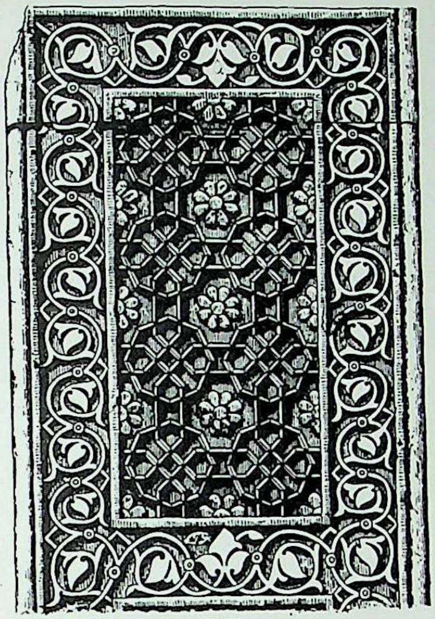


Fig. 1.

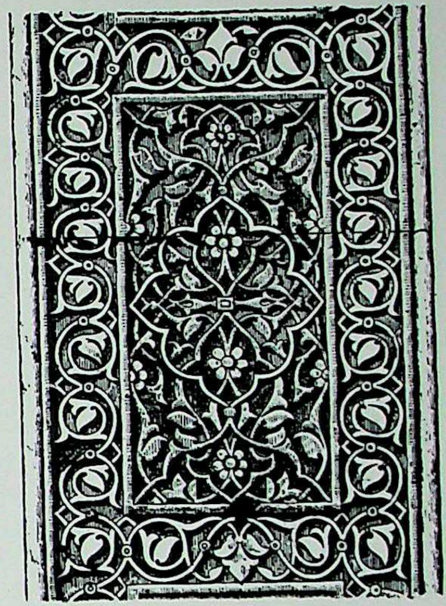


Fig. 2.

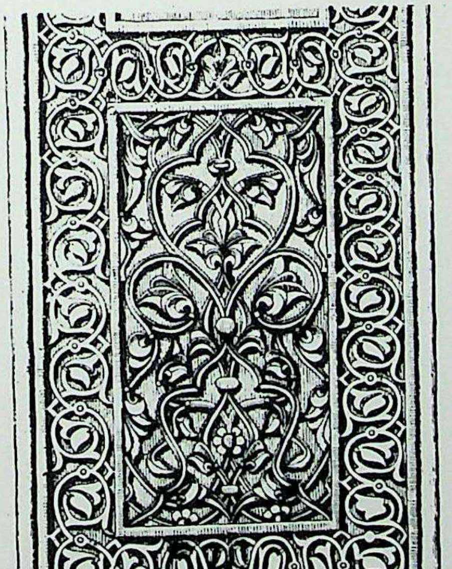


Fig. 3.

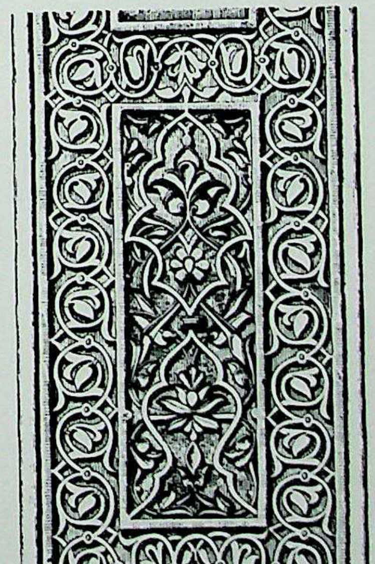


Fig. 4.

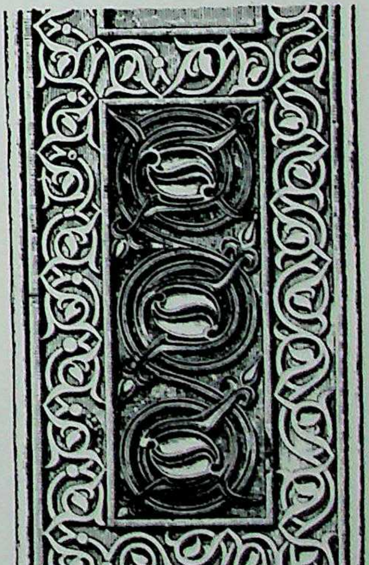
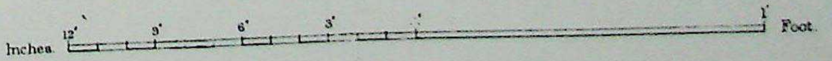


Fig. 5.



DETAIL OF PANELLING FROM PILASTERS, BÎR BAL'S HOUSE, FATEHPUR SIKRI

Survey of India Offices Calcutta, November 1894.

Photo etching.

TECHNICAL ART SERIES, 1894.

PLATE VI.

FATHPÛR SÎKRÎ: BÎR BAL'S HOUSE.

THE NORTH PORCH.—DETAIL OF ARCHWAY OVER THE ENTRANCE.

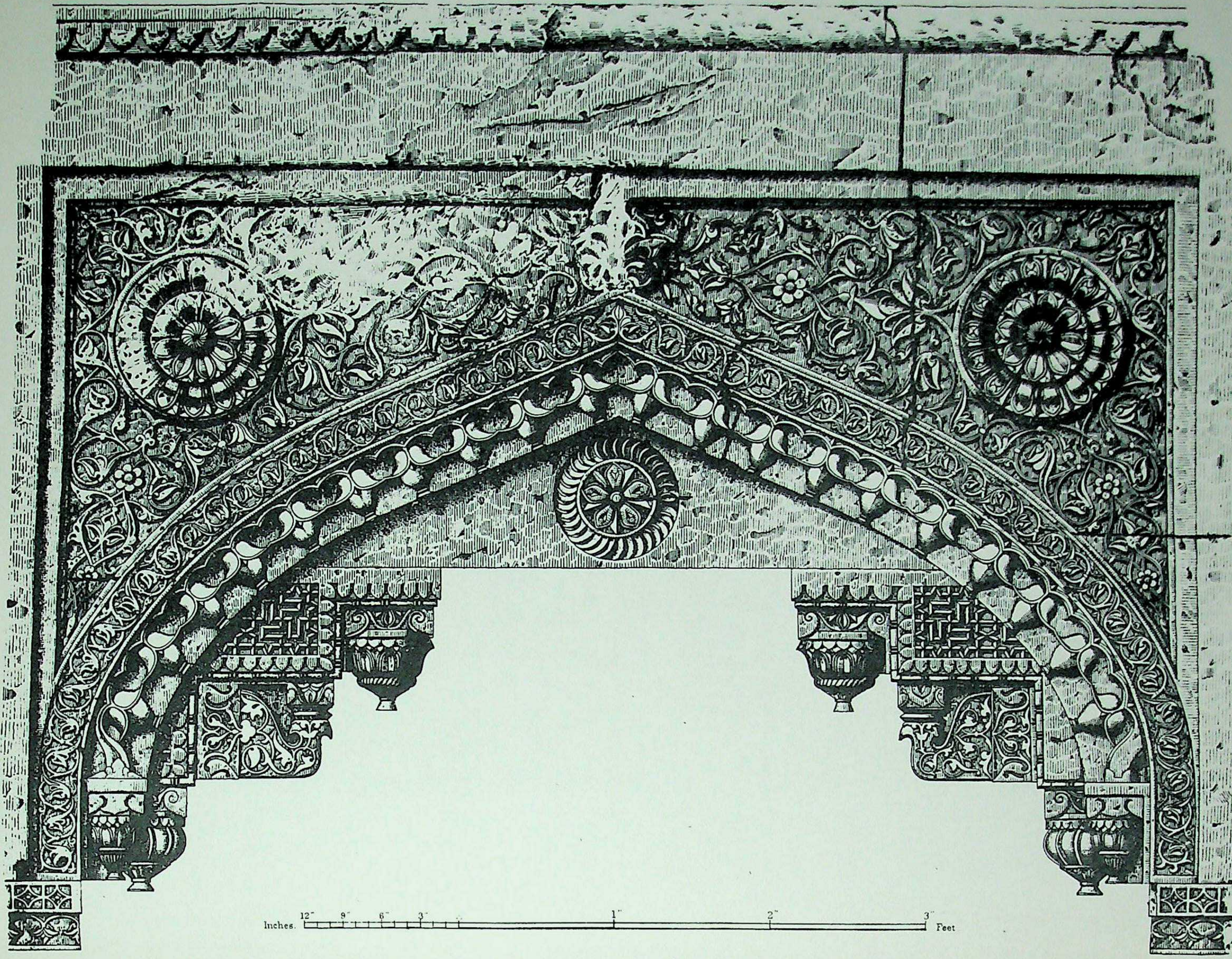
THE drawing on this Plate represents the upper portion of the entrance porch on the north side of Bîr Bal's house. On the south side is a corresponding one, which, it is to be regretted has been turned, to suit modern requirements, into a bath-room. Both assimilate in design, but the detail is varied. The walls at the sides, both externally and internally, are elaborately carved, and every few feet apart they are broken up by pilasters. Between each pilaster is a pretty arched recess, some 1′ 6″ in depth. The ceilings of the porches are coved and carved on the soffit, or underside, with very effective geometrical patterns. In keeping with the walls the pilasters are decorated, and the drawings shown on Figs. 3 and 4, Plate IV, illustrate the nature of the ornament on the bases.

The top of the entrance is spanned by massive stone lintels, supported, as the drawing shows, on solid brackets of Hindû origin. Partly concealing the lintels are slabs of stone, hewn out into the form of an arch, which rest on the capitals of pilasters on the sides of the entrance. As will be observed from the drawing, they are exquisitely carved. The spandrils, the extrados, and the face of the "arch," as well as the brackets beneath the lintels, have each in turn received the attention of the carver. The ornamentation upon the spandrils is raised and grouped in graceful scrolls round a rich circular leaf-carved patera in the centre of each spandril, a section of which is given on the side of the drawing. The tendrils of the scroll encircling the pateræ are looped together here and there by little leaf rosettes, and the leaves at the ends have a peculiar re entering curve, which is a prominent feature in Arabian and Persian ornament. The face of the "arch" is carved with the "sangtara" looped together by cuspings and along the top of it is a very pretty band of scroll work.

The upper part of the left spandril is somewhat injured, but the work on the whole, considering its delicate nature, is in a remarkably good state of preservation, and this is owing to the protection afforded it by a drip-stone projecting a considerable way in front of the entrance which is seen in elevation along the top of the drawing.

EDMD. W. SMITH.

GOV'T ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH. Nº 274



Inches.
12"
9"
6"
3"
1'
2'
3'
Feet

DETAIL OF ARCHED ENTRANCE NORTH PORCH, BİR BALS HOUSE, FATEHPUR SIKRI

TECHNICAL ART SERIES, 1894.

PLATE VII.

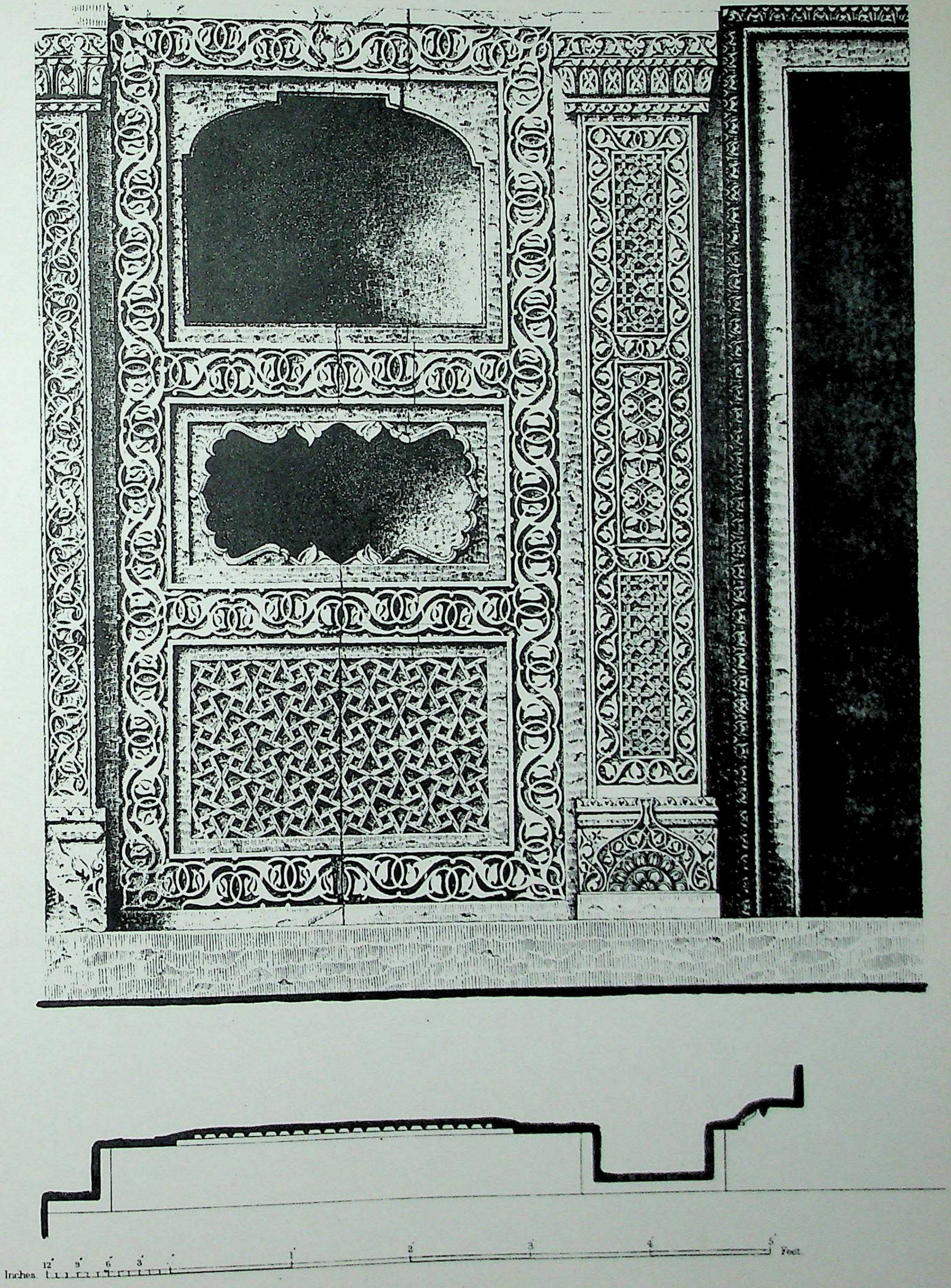
FATHPÛR SÎKRÎ: BÎR BAL'S HOUSE.

DETAIL OF WAINSCOTTED WALLS IN THE UPPER ROOMS.

TO what an extent the walls of Bîr Bal's house are carved can be judged from Plate VII, which illustrates the ornamentation upon the interior walls of the upper chamber crowning the south-east corner of the house. They are built in red sand-stone, and the wainscotting extends from the floor to the top of the capitals of the pilasters in the corners and upon the sides of the room supporting stone beams laid across the angles of the apartment to carry a dome above. The frieze around the dome was given on Plate IV.

The lower portion of the wainscotting is solid and panelled with an uncommon geometrical device, whilst the upper part is pierced by a recess, some 1′ 6″ deep, divided by a shelf into two parts which served the purposes of compartments. The front of the shelf, like the sides of the recess and panels, is neatly chiselled with a continuous double leaf-scroll. The pilasters at the sides of the wainscotting are elaborately ornamented with floral and geometrical devices, and the architraves round the doors are carved in keeping with the surroundings. It is seldom, if ever, one sees a wall so elaborately carved, although it was a common practice of the period to divide them up into recesses, which were used—as furniture was hardly known—as almirahs. The design is more applicable to wood than stone, and with slight modifications might very suitably be utilised for cabinet-work

EDMD. W. SMITH.


Inches
12
9
6
3
1
2
3
4
5
Feet

DETAIL OF WAINSCOTTED WALLS IN THE UPPER ROOMS, BĪR BALS HOUSE, FATEHPUR SIKRI.

TECHNICAL ART SERIES, 1894.

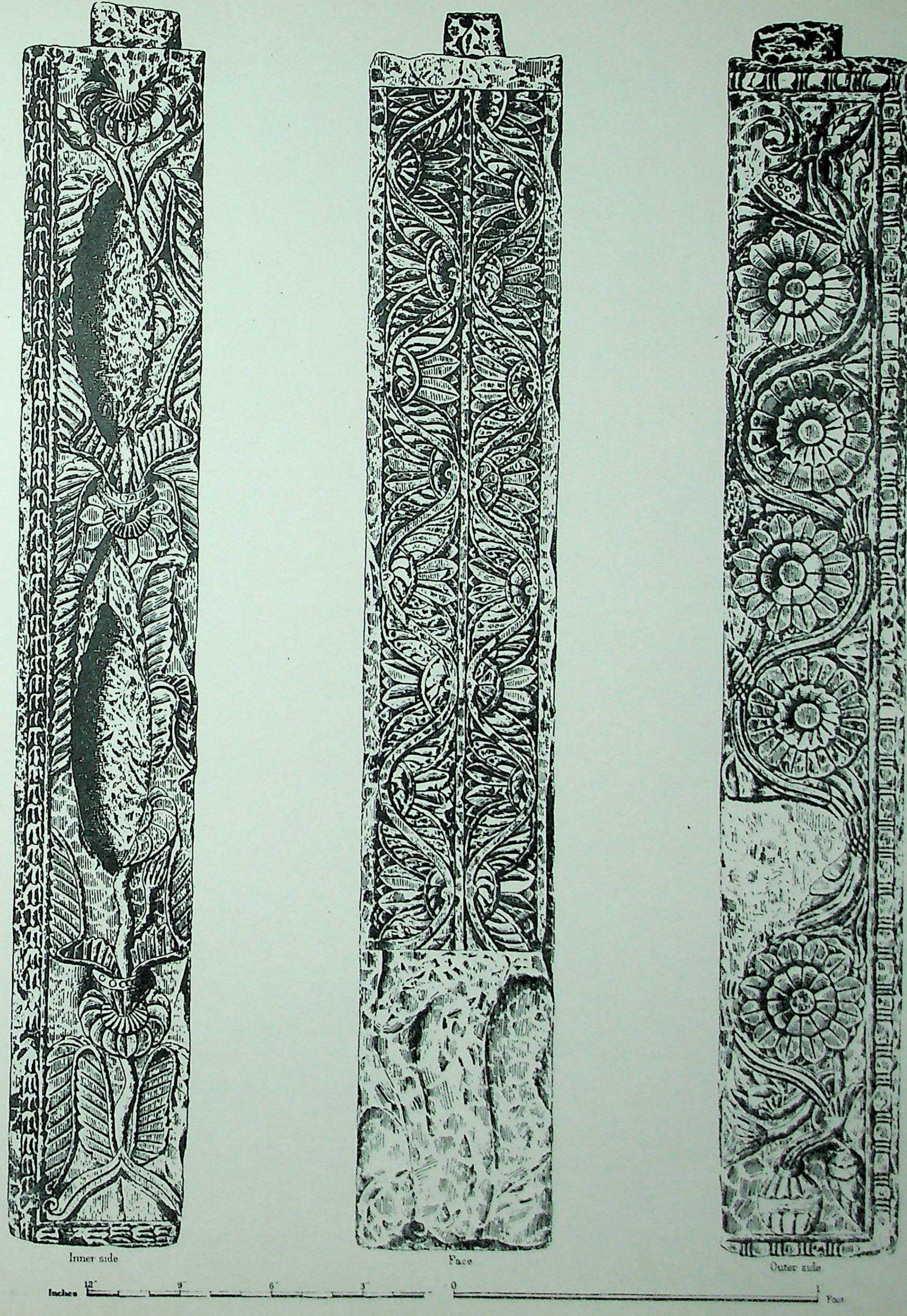
PLATES VIII AND IX.

DECORATIVE ORNAMENTS FROM AN ANCIENT JAINA STÛPA AT MATHURÂ.

THE sculptures represented on these plates were found by me during the excavation of the Kankâlî Tîlâ at Mathurâ in 1890, and are now in the Lucknow Museum. They formed parts of an ancient Jaina Stûpa which, according to the inscriptions discovered on the spot, was built several centuries before the Christian era (*see* also Plate VI of 1892). Plate VIII exhibits a small corner pillar of a railing, showing on the inner side two eyelet holes for the reception of the stone bars or rails. The flowered ornamentation used in the decoration of this pillar consists of the lotus plant with its buds and blossoms, which are of singular beauty and delicacy of design. The decorative ornaments, represented in Figures 1 and 2 of Plate IX, exhibit a variety of highly ornamental *triśûlas* which, with the ancient Jainas, were considered as emblems of "the three Jewels," *viz.*, right faith, right cognition, and right conduct. The *triśûla* was no doubt, in ancient India, a symbol used by all sects for various purposes and with various interpretations. It was also commonly used for personal ornaments, and appears in earrings, in necklaces, and women's girdles, and has frequently the very same shape as on Plate IX. Figure 3 represents a continuous undulating stalk studded with the leaves and flowers of the *pâtalî*, or "trumpet flower," which forms a very effective decoration. These new sculptures from the Kankâlî Tîlâ prove that the ancient art of the Jainas did not differ materially from that of the Bauddhas. Both sects use the same ornaments, the same artistic motives and the same sacred symbols, differences occurring chiefly in minor points only. The cause of this agreement is, in all probability, not that the adherents of one sect imitated those of the other, but that both drew on the national art of India and employed the same artists. Full proof of this assumption, which modifies the statements in some standard works on Indian archæology regarding the development of ancient Indian art, can only be obtained by the excavation of really old Brahmanical temples.

A. FÜHRER.

Govt Archæological Survey of N.W.P & Oudh No 592.


Inches
12"
9"
6"
3"
0
1
Foot

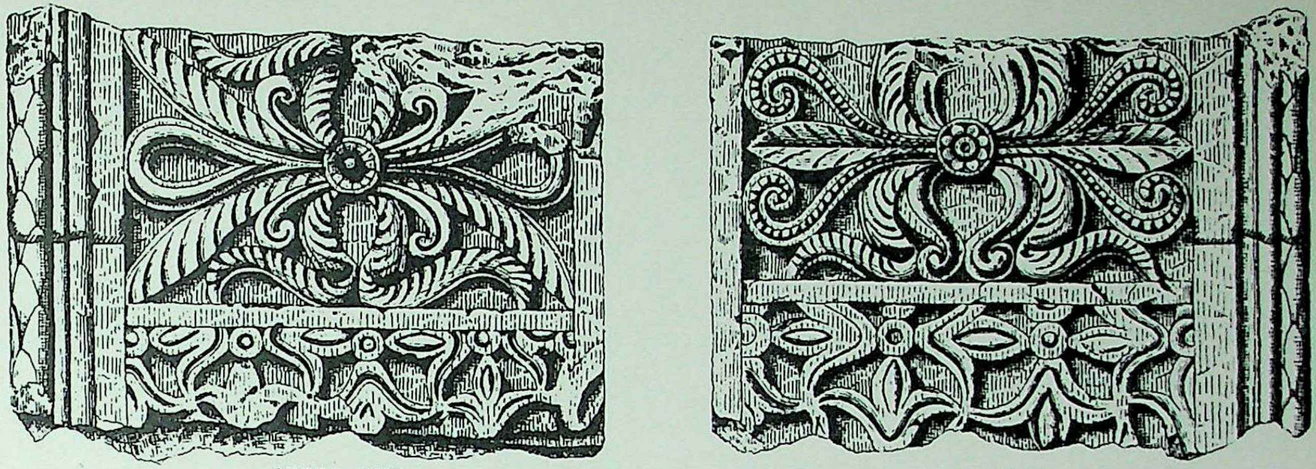
Inner side

Face

Outer side

CORNER PILLAR OF RAILING FROM AN ANCIENT JAINA STŪPA AT MATHURA

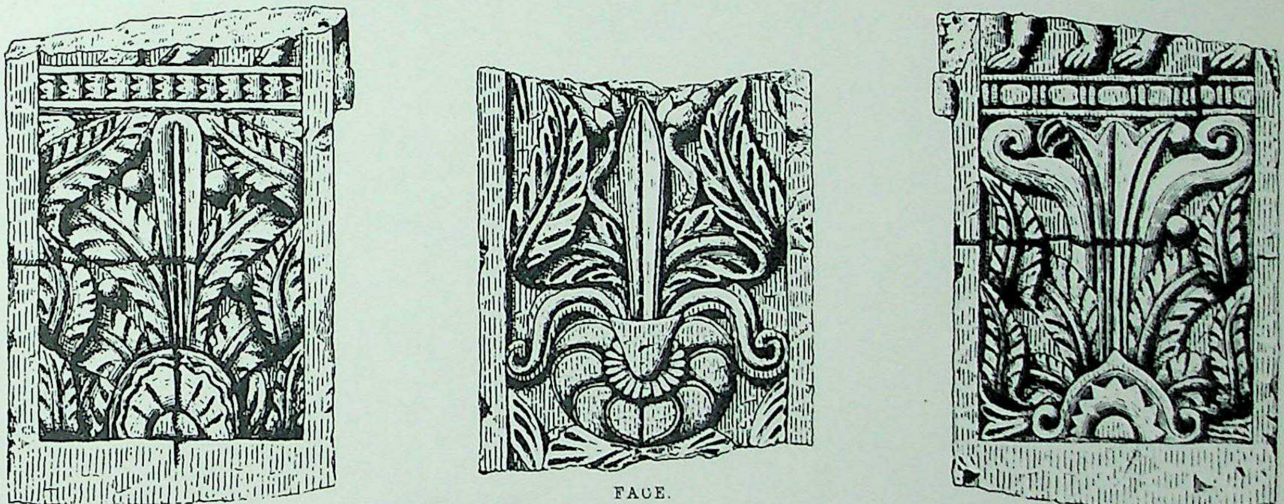
Govt Archæological Survey of N.W.P & Oudh, No 612.



OUTER SIDE.

INNER SIDE

Fig. 1. FRAGMENT OF DOOR-JAMB.



OUTER SIDE.

FACE.

INNER SIDE

Fig. 2. BASE OF SMALL RAILING PILLAR.

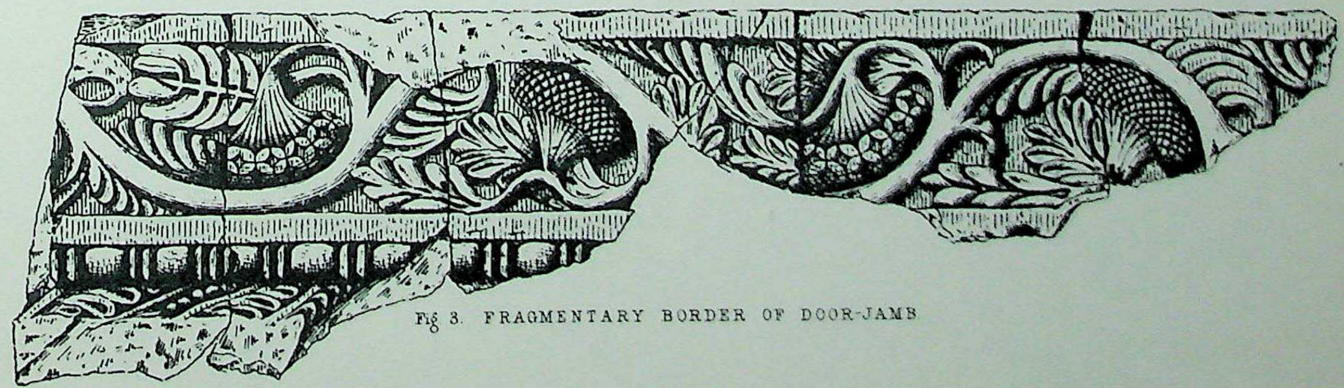


Fig 3. FRAGMENTARY BORDER OF DOOR-JAMB

12'
9'
6'
3'
1
Inches.
Feet

DECORATIVE ORNAMENTS FROM AN ANCIENT JAINA STÛPA AT MATHURA

Photo-etching

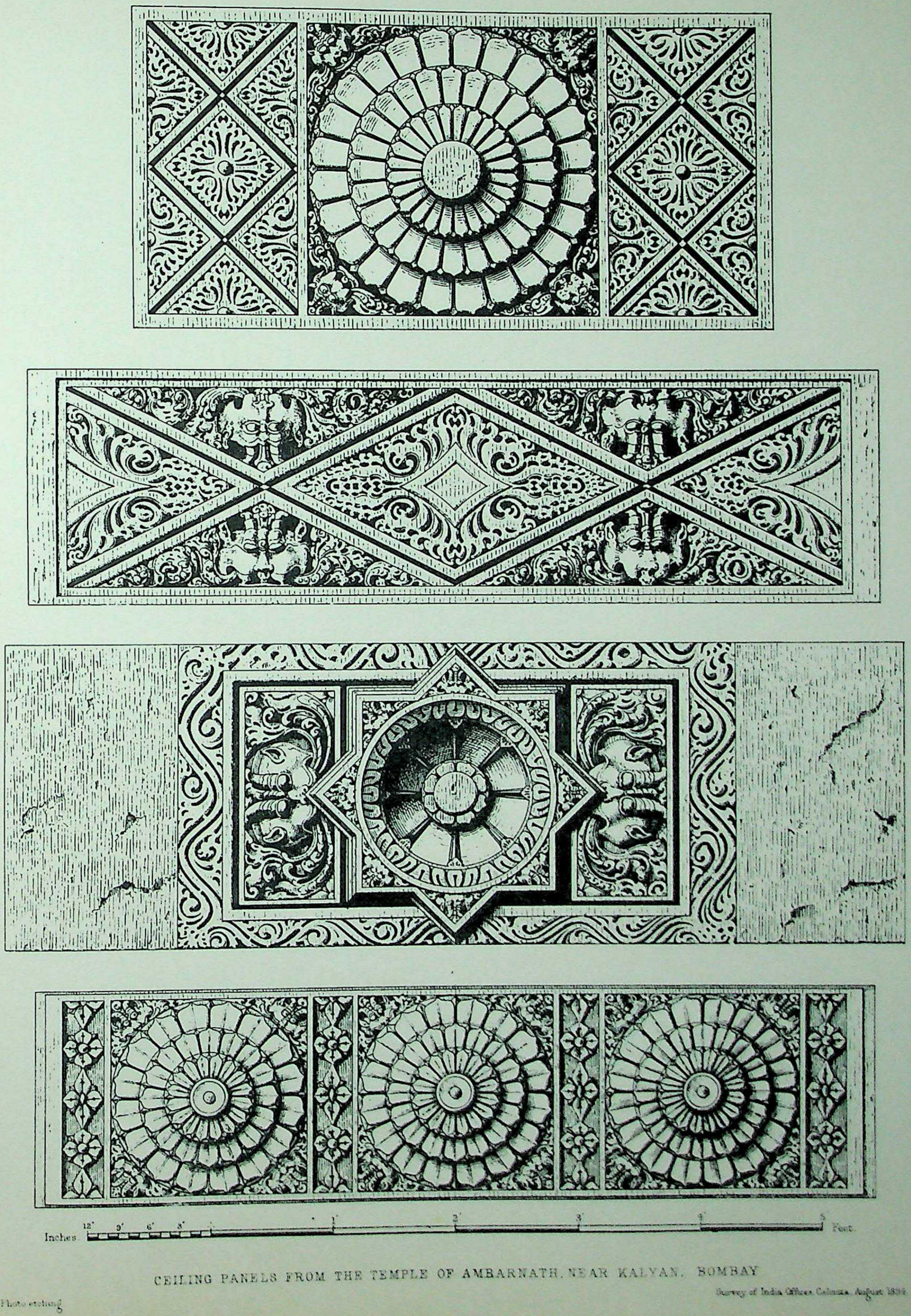
TECHNICAL ART SERIES 1894.

PLATE X.

DECORATED CEILING PANELS FROM THE TEMPLE OF AMBARNATH.

THE temple of Ambarnath, at the village of Ambarnath, is situated about 4 miles from Kalyan Junction, on the Great Indian Peninsula Railway. From an inscription within, it would appear to have been built in the ninth century. The building is richly sculptured throughout, but its ceilings are especially well decorated. A great deal of it is incised work, and the light, as it comes in at the doorways at an oblique angle upon it, produces deep rich shadows in the channels between the pattern.

GOVT ARCHÆOLOGICAL SURVEY OF WESTERN INDIA, Nº 1059.


12"
9"
6"
3"
1'
2'
3'
4'
5'
Inches
Feet

CEILING PANELS FROM THE TEMPLE OF AMBARNATH, NEAR KALYAN, BOMBAY

Photo-etching

Survey of India Offices Calcutta, August 1894

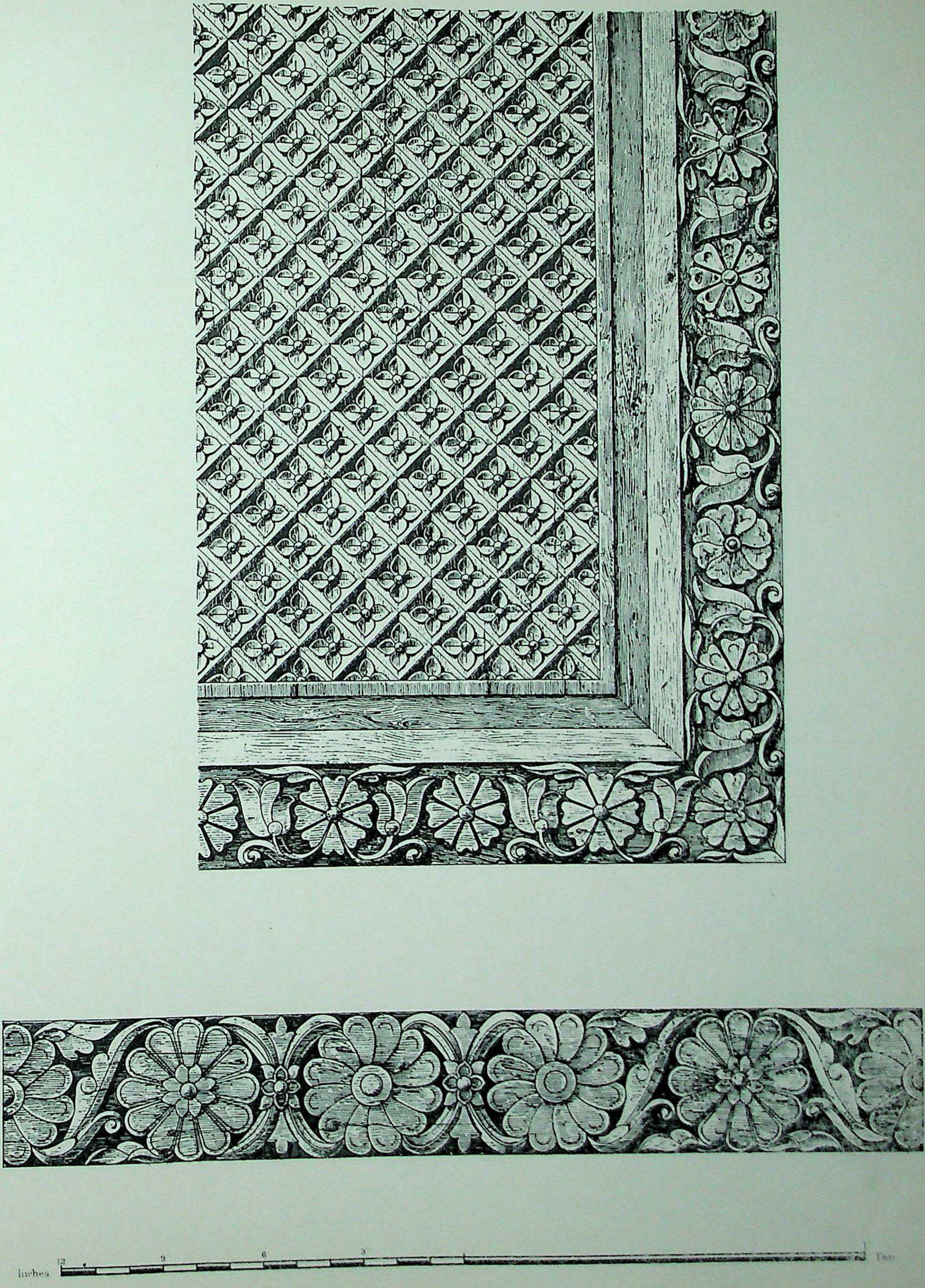
TECHNICAL ART SERIES 1894.

PLATE XI.

WOOD-CARVING FROM BIJAPUR.

THE wood-carving on Plate XI is from Bijapur. Bijapur, though noted for its buildings and work in stone, is not so for its wood-carving, at least at present. But the city was rifled when it fell into the hands of the Marathas in 1818, and nearly all its buildings were stripped of their woodwork. The few fragments remaining, which are occasionally met with, are sufficient to justify the conclusion that it contained abundance of remarkably fine work in this line which supplemented the masonry work, such as ceilings, balconies, window frames and shutters, doors, etc. Much of it was gilded and painted, as may still be seen in the Asâr Mahal.

Govt Archæological Survey of Western India No 818.


Inches
12
9
6
3
1
Feet

PORTION OF A CARVED WOOD CEILING PANEL BIJAPUR.

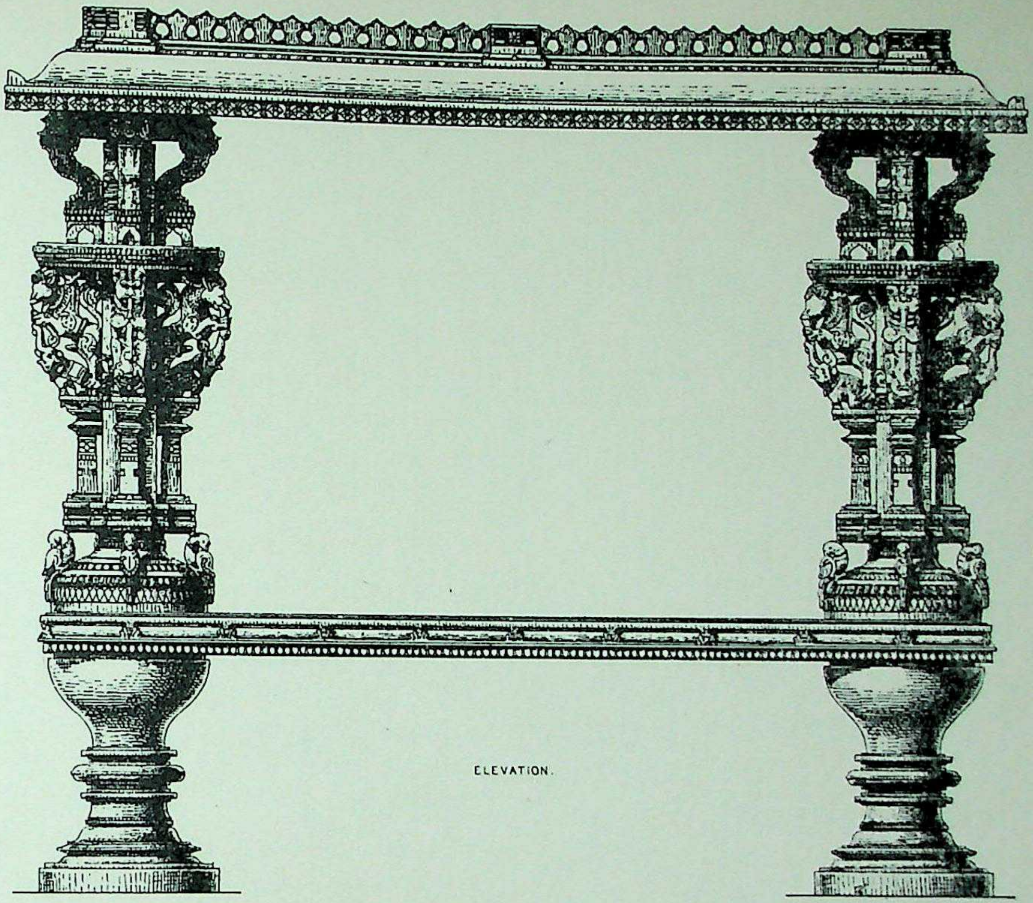
TECHNICAL ART SERIES 1894.

PLATE XII.

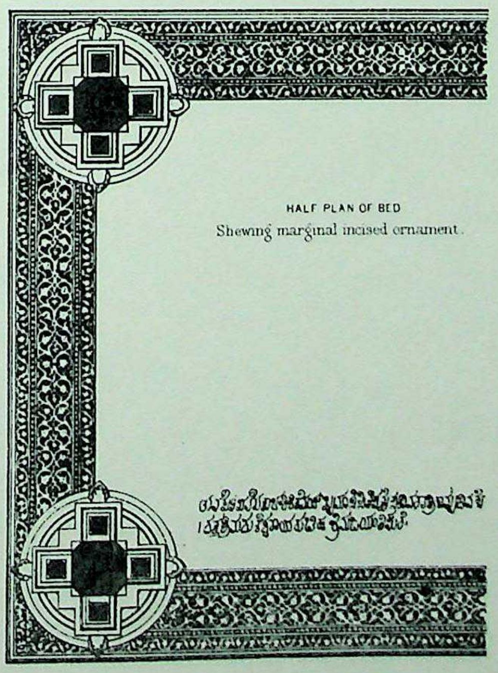
STONE IDOL–COUCH FROM A TEMPLE AT BANAVASI, N. KANARA.

THE stone couch upon plate XII is preserved in the temple of Madhukeśvara at Banavasi, in North Kanara. It is intended for the use of the god. Delicately chiselled stonework is a characteristic of the old Chalukyan temples of this part of the country, the material used being generally a very close grained black stone which is fairly hard yet easily carved, and takes a high polish. In fact, it is of such an uniform grain that whole shafts of round columns have been turned with all their mouldings in upright lathes. The half plan of the bed shows a very pretty marginal band of incised ornament which runs all around it.

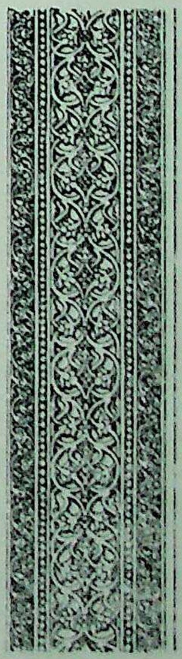
Govt Archæological Survey of Western India, No 1093.



ELEVATION.



HALF PLAN OF BED
Shewing marginal incised ornament.



Inches
12
6
1
2
3
4
5
Ft.

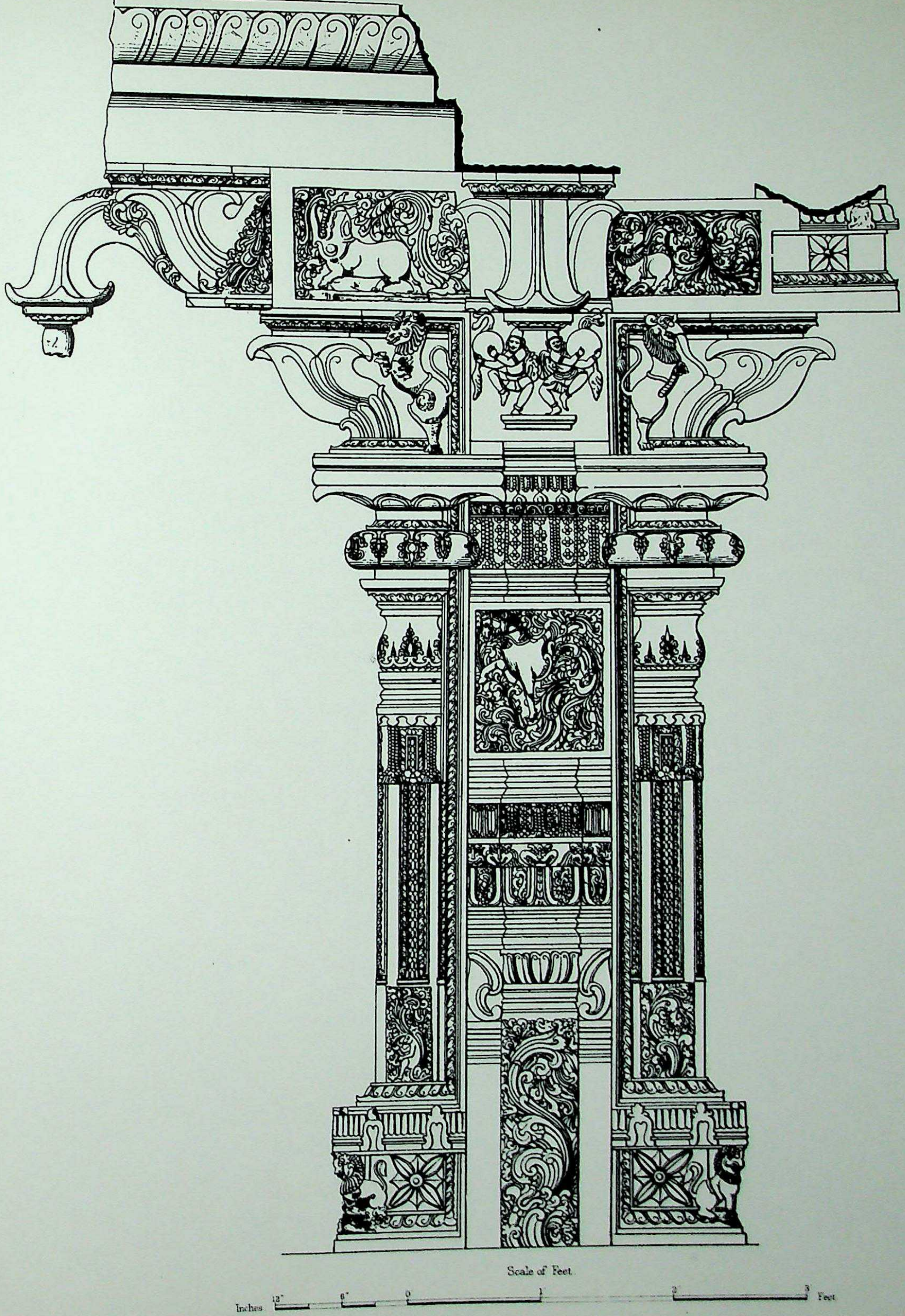
STONE COUCH AT A TEMPLE AT BANAVASI, NORTH KANARA

PLATE XIII.

PIER IN THE SUBRAHMANYA SHRINE, BRAHADÊŚVARA TEMPLE, TANJORE.

THE Tanjore temple is one of the earliest of the greater temples of South India. In it, the great shrine, which dates from the eleventh century, is the most prominent feature. In this, it contrasts with the other well-known temples, whose shrines are insignificant as compared with the outer and later works. The principal shrine stands in a large single courtyard, and has a smaller entrance court in front. The accessory buildings are of much later and varying date, extending up to the seventeenth century. The temple is described by Fergusson. (*Indian and Eastern Architecture*, pp. 343 45.) His ideas as to its age seem to have been correct, but the dates he has quoted from another authority make the central Chola shrine some centuries too late, and the other Dravidian buildings too early. The carved stone pier, shewn in the plate, stands in the open verandah in front of the Subrahmanya shrine—a small detached building adjoining the larger shrine. The plan of the central portion is square and octagonal, with an attached shaft on two of the opposite faces. It has many features in common with that shewn on the following plate, and dates from the seventeenth century.

PLATE XIII.


Scale of Feet.
Inches
12"
6"
0
1
2
3
Feet

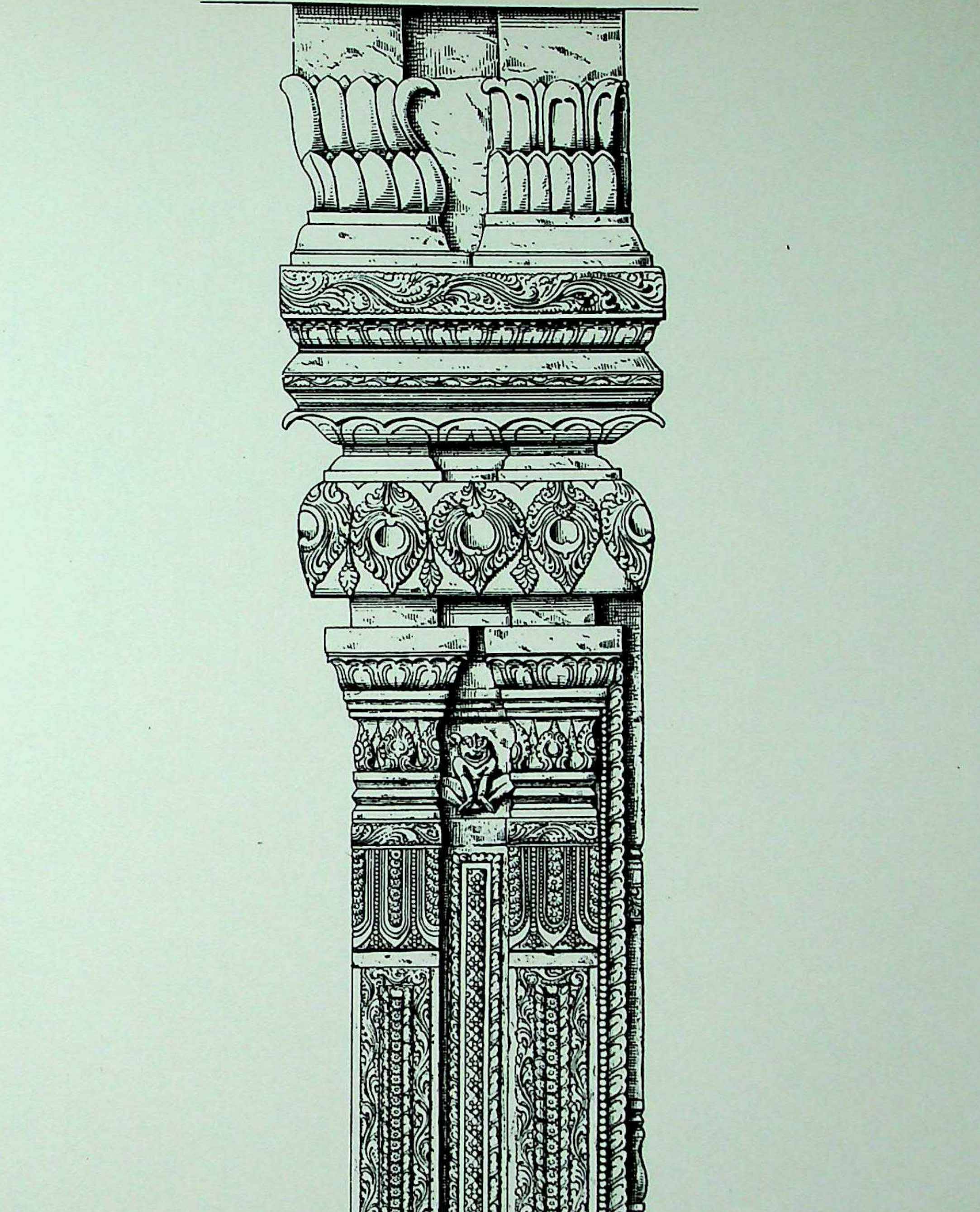
PIER IN THE SUBRAHMANYA SHRINE BRAHADÊSVARA TEMPLE, TANJORE

Survey of India Offices Calcutta, July 1894

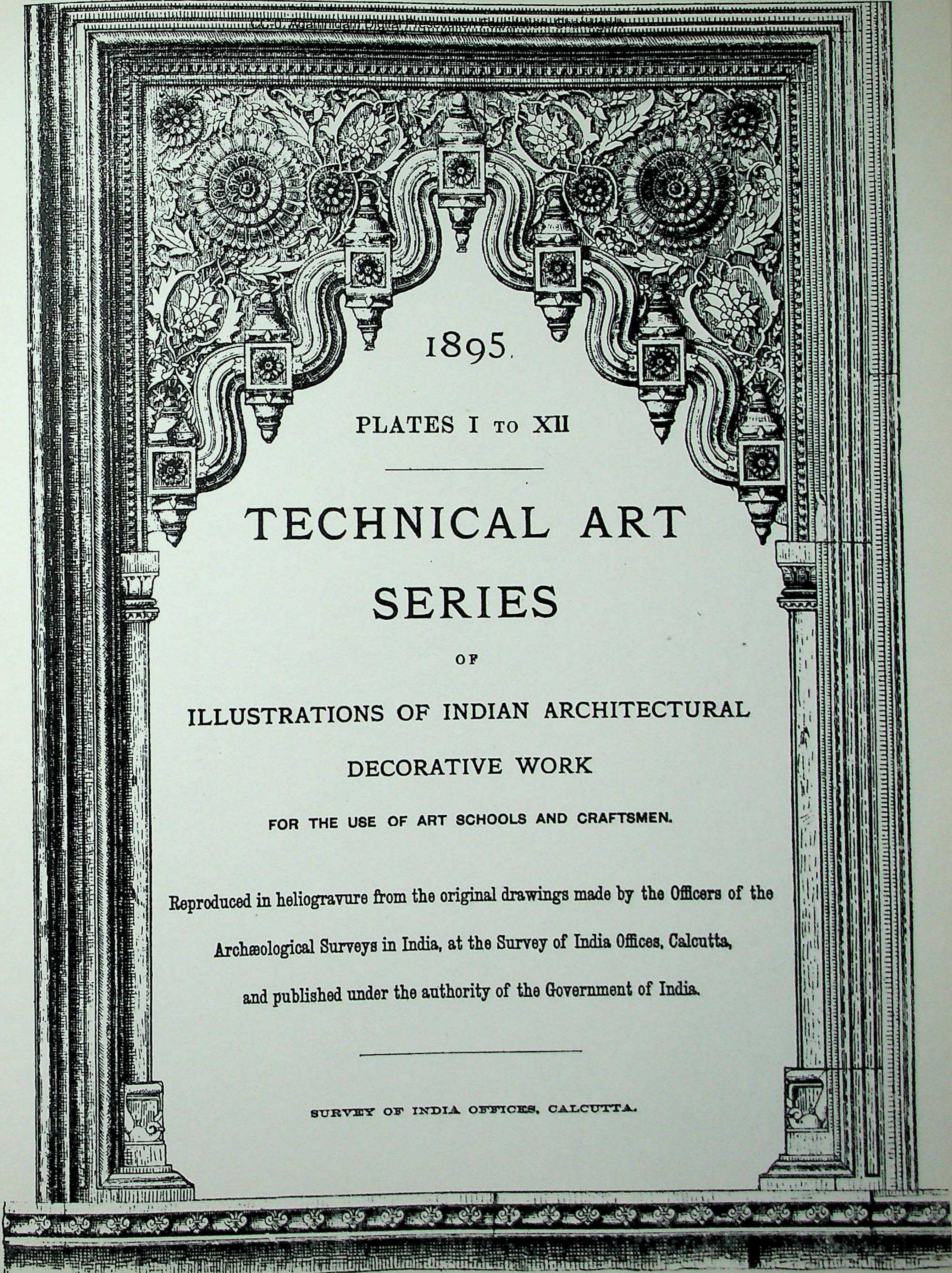
PLATE XIV.

PIER IN THE THOUSAND PILLARED MANDAPA, MINAKSHI AMMAN TEMPLE, MADURA.

THE Madura temple is a typical example of the great Dravidian buildings. Its most noteworthy features are found in its later works. Among these is the Airakal or thousand pillared mandapa. Fergusson mentions (*ib.* p. 364) that its "sculptures surpass those of any other hall of its class" he was acquainted with. The plate shews one of the front piers. In plan it is a square with two narrow pilasters on two opposite faces.


Scale of Feet
12"
6"
1'
2'
3'
4'
5'
6'
7'
Inches
Feet

PIER IN FRONT OF THE THOUSAND PILLARED MANDAPA, MINAKSHI AMMAN TEMPLE, MADURA



1895.

PLATES I TO XII

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the Archæological Surveys in India, at the Survey of India Offices, Calcutta, and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

I & II.—Fatehpur Sikri: Rajah Bir Bal's House. Detail of Wall Recesses, Carved Panels, and Borders.

III to VI.—Fatehpur Sikri: Rajah Bir Bal's House. Details of Geometrical Patterns upon the Pilasters.

VII.—Fatehpur Sikri: Jodh Bai's Palace. Ceiling over the North-East Angle Room on the Ground floor.

VIII.—Fatehpur Sikri: Jodh Bai's Palace. Perforated Red-Sand-Stone Panel.

IX.—Tomb of the late Navab, Pathari, Central India. Front Elevation.

X & XI.—Tomb of the late Navab, Pathari, Central India. Details of Sculpture.

XII.—Wooden Shrine door of Gauri Samkara Temple, near Jubbulpore.

TECHNICAL ART SERIES, 1895.

PLATES I TO VI.

FATEHPUR SÎKRÎ: RAJAH BÎR BAL'S HOUSE.

WALL RECESSES, CARVED PANELS, AND BORDERS.

IN parts for 1891, 1893, and 1894 of the Technical Art Series, several plates illustrative of Akbar's Architecture at Fatehpur Sîkrî were given, and Plates I to VIII, which are now presented still further exemplify the style.

Plates I to V are taken from the house Rajah Bîr Bal built for his daughter, and they should be read along with Plates III to VII of last year's issue. The walls of the house, both inside and out, are beautifully carved from top to bottom. They are cut up into numerous bays by handsome pilasters (see Plate VII, Part for 1894), and midway between the pilasters are recesses, or niches, which served the purposes of cupboards. Figs. 1 and 2 illustrate a couple of these recesses. They measure 3 feet 9 inches in height and 2 feet 9 inches in width. In the centre is an arched opening, receding from the face of the wall about a foot. It is surrounded by a square and beautifully carved frame (Figs. 4, 5, 6, Plate I, and Figs. 5, 7, 8, Plate II), advanced slightly from the wall, resting upon a moulded sill. On the imposts of the archway are small corbels and springing from them is a cusped fringe running round the intrados of the arch. The spandrils above the arch are sunk and ornamented with well-cut rosettes. In the apex of the archway over the recess shown in Fig. 1, Plate I, a couple of birds, probably meant for parrots, are sculptured. This is the only instance of birds being carved upon the recesses, although sculptured representations of birds and animals (forbidden by the Qur'ân) are often found upon the buildings at Fatehpur Sîkrî.

Fig. 3, Plate I, and Figs. 1 and 2, Plate II, represent some of the carved panels upon the pilasters on the sides of the recesses There are three panels, enclosed by borders, on each pilaster. The designs vary considerably, but the upper and lower panels are generally alike. The borders round the panels are varied, and samples are depicted at Figs. 3 and 4, Plate VII. They are carved chiefly with undulating scrolls, relieved from severeness by conventional foliage and flowers more or less Persian in character. Great attention has been paid to the treatment of the angles, the patterns being manipulated to avoid harshness and stiffness. The stone skirting between the sills under the wall recesses, and the floor of the rooms, are carved with beautiful oblong-shaped panels surrounded by borders sculptured with scrolls, etc. An example of one of the borders is given at Fig. 6, Plate II.

Plates III, IV, V and VI are diagrams of some of the patterns carved upon the pilasters and dadoes round both the exterior and interior walls of the rooms. They consist principally of geometrical traceries: many of the designs are rare, and are traceable to Persian and Arabic examples. Upon some the *svastika* or cross, a sacred ancient symbol, has been ingeniously introduced. The symbol is of great antiquity and is found on the rock-cut temples of Western India. It is prevalent also in Chinese and Japanese decoration. Many of the designs are suggestive of Japanese workmanship, but they may, with the exception of the *svastika*, which is purely Indian, have probably been derived from Arabia or Persia.

E. W. S.

Govt. Archæological Survey of N.W.P. & Oudh

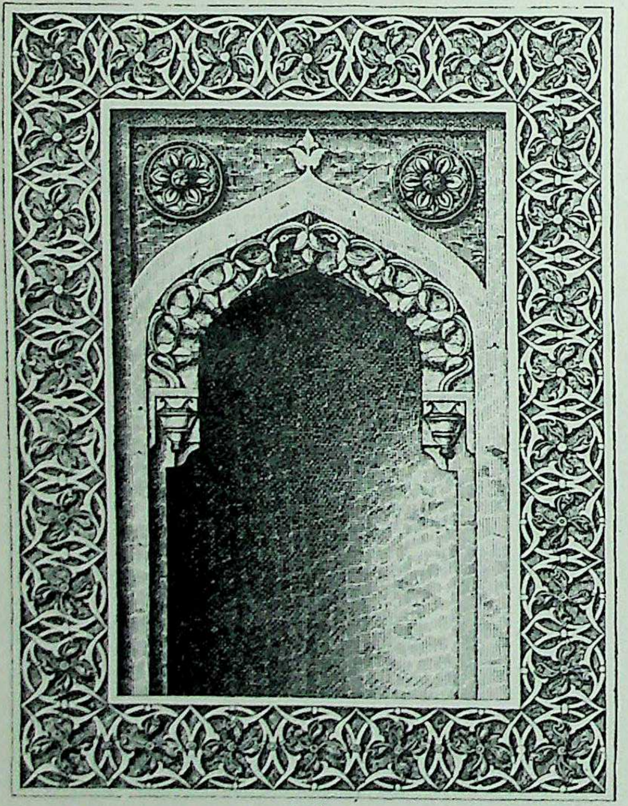


Fig 1.

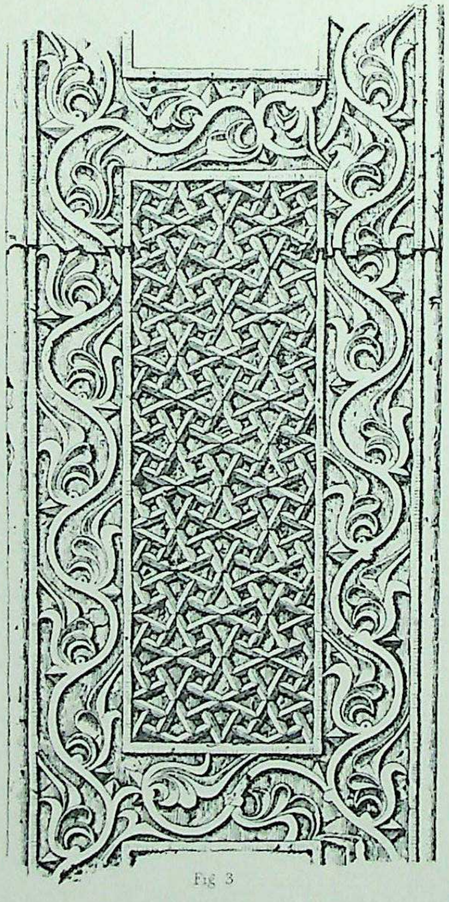


Fig 3

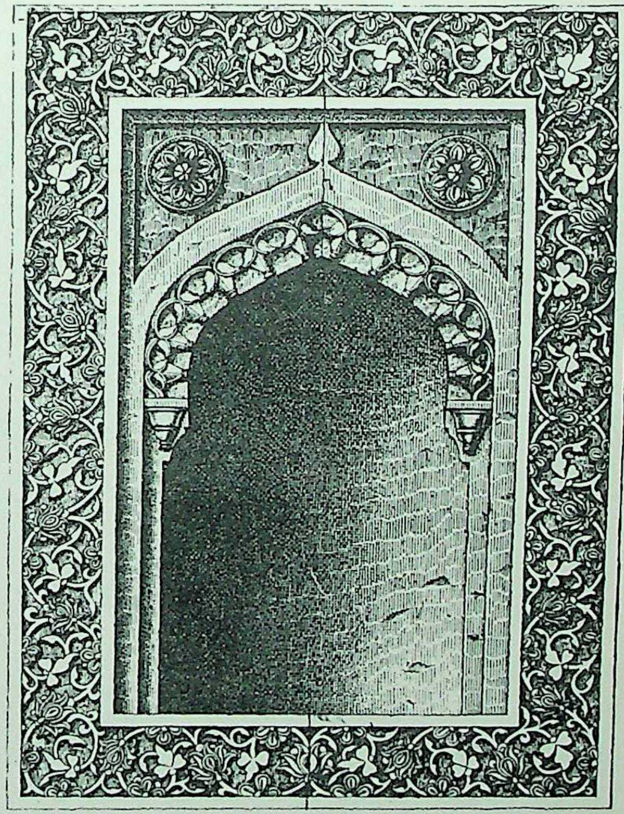
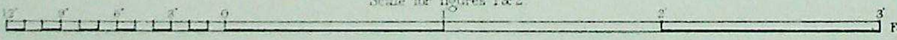


Fig 2

Scale for figures 1 & 2



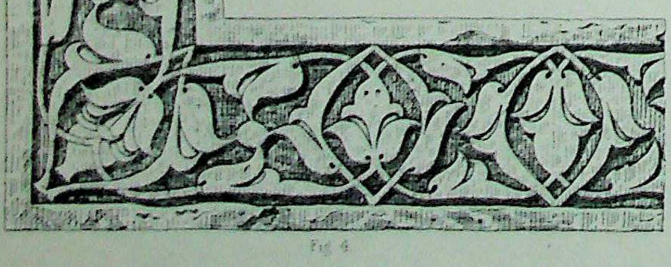


Fig 4

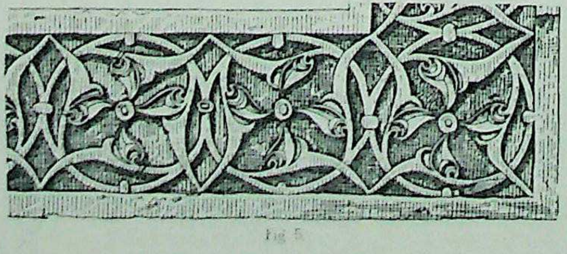


Fig 5

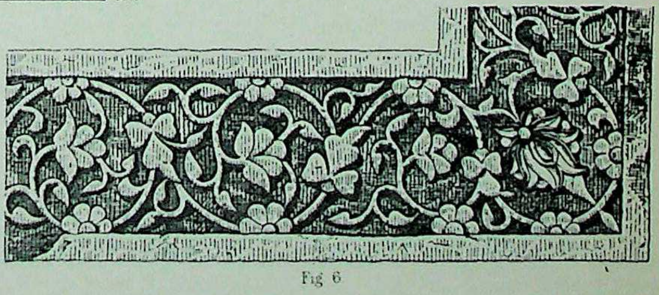


Fig 6

Scale for figures 3, 4, 5 & 6

12"
9"
6"
3"
0
1
Foot

FIGURES 1 & 2 DETAIL OF WALL RECESSES, FIGURE 3 DETAIL OF CARVED PANEL FIGURES 4, 5 & 6 DETAIL OF CARVED BORDERS, RAJAH BIRBAL'S HOUSE, FATEHPUR SIKRI.

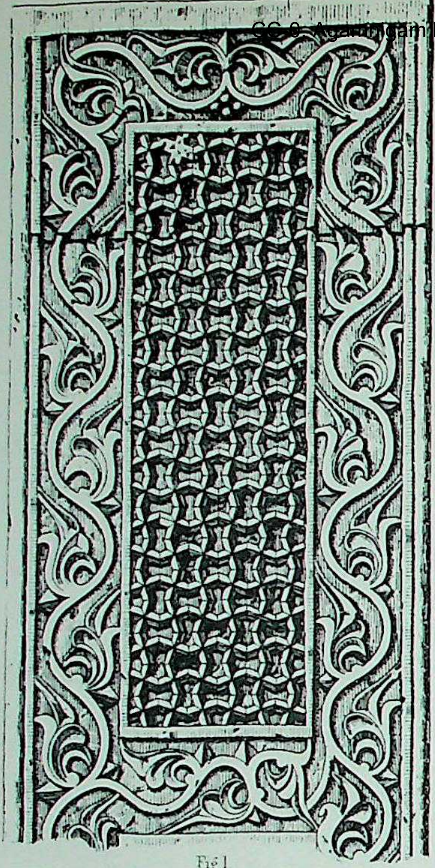


Fig 1

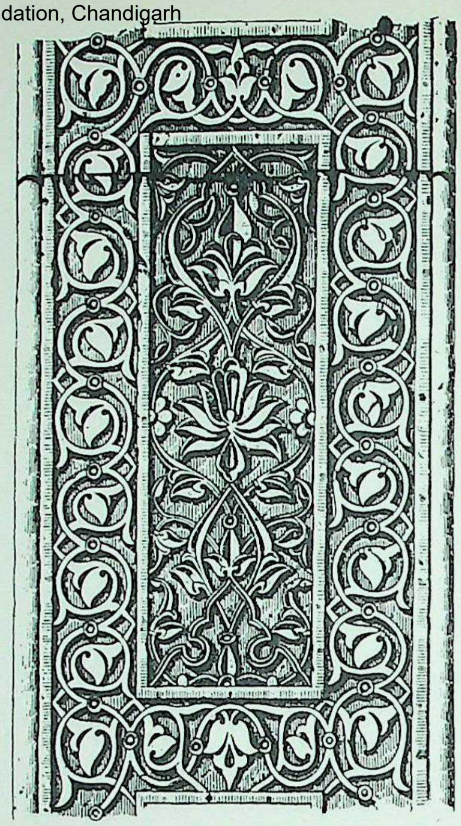


Fig. 2.

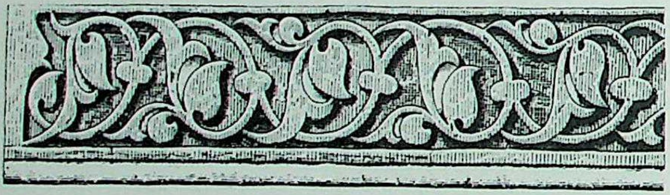


Fig. 3.

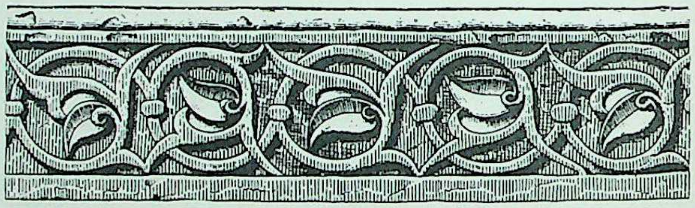


Fig 4.

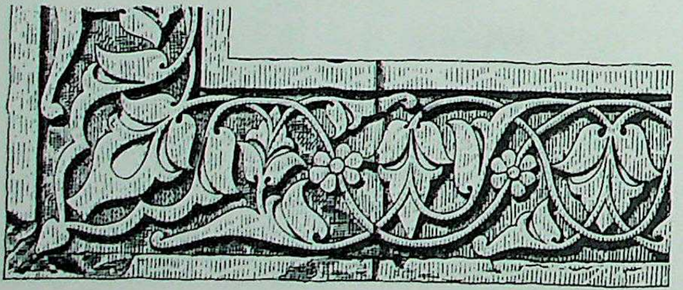


Fig 5.

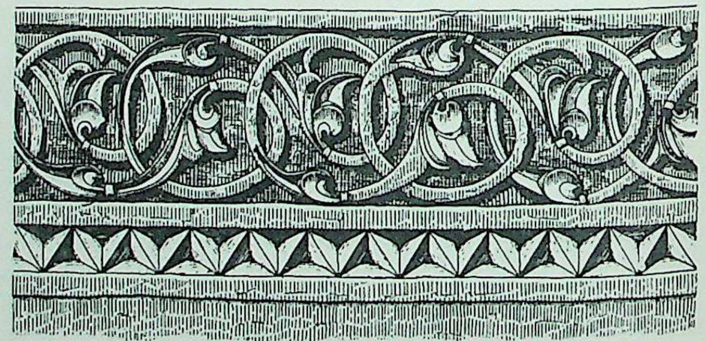


Fig 6.

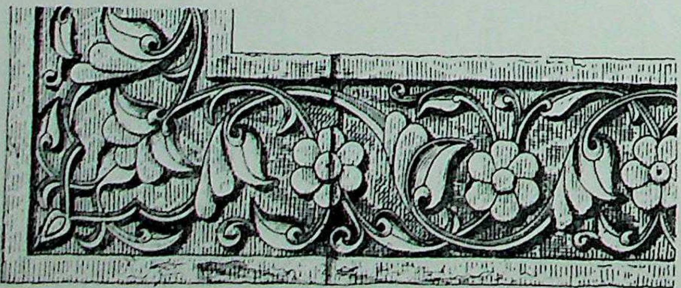
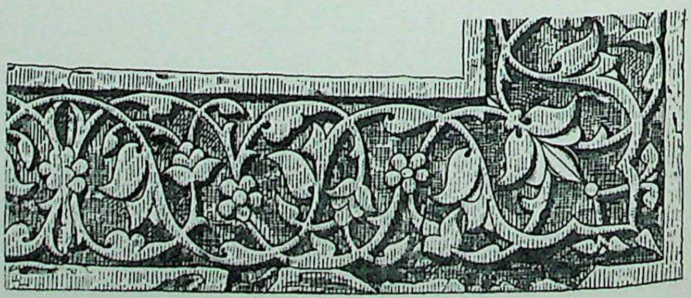


Fig 7.

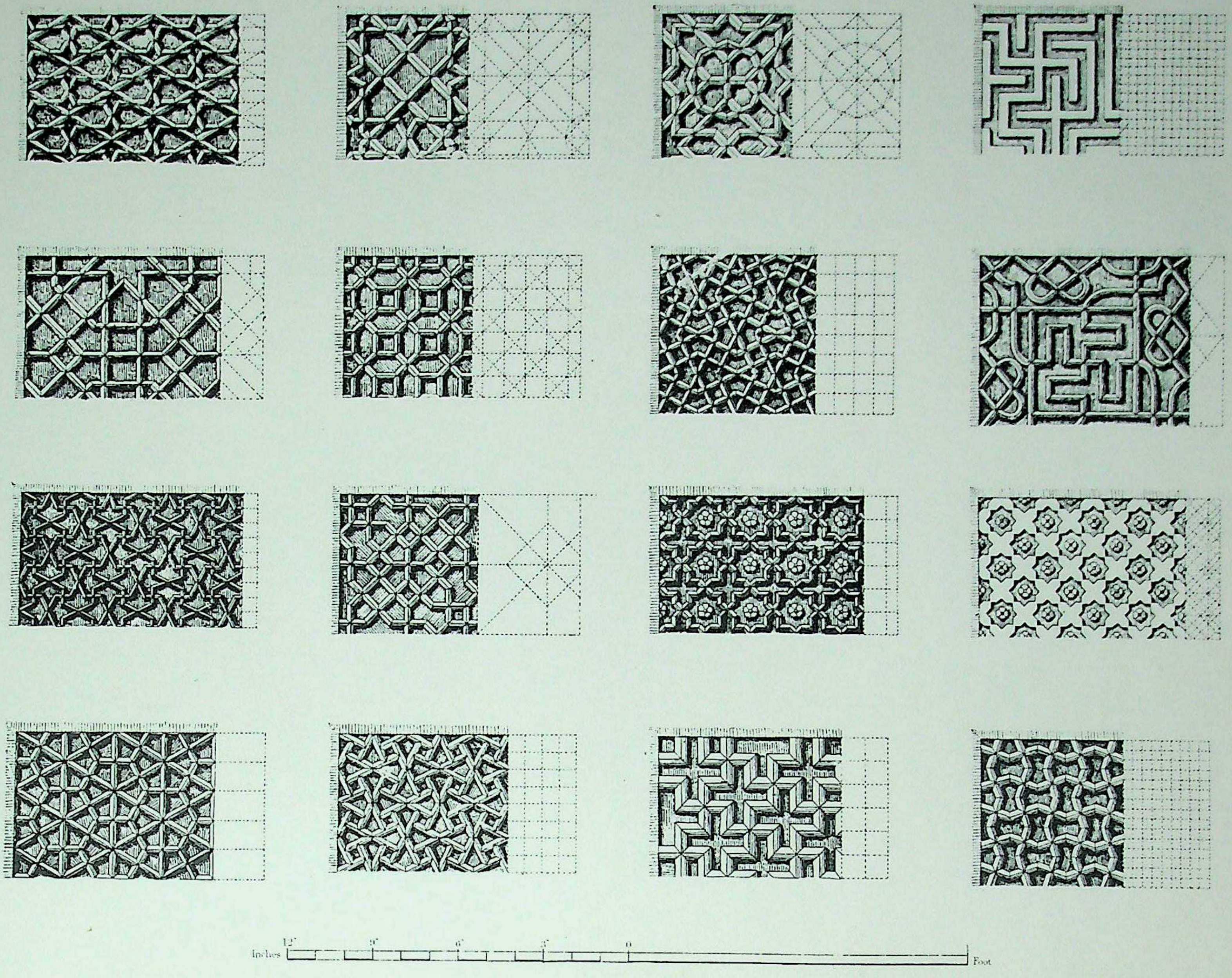


. Fig 8.

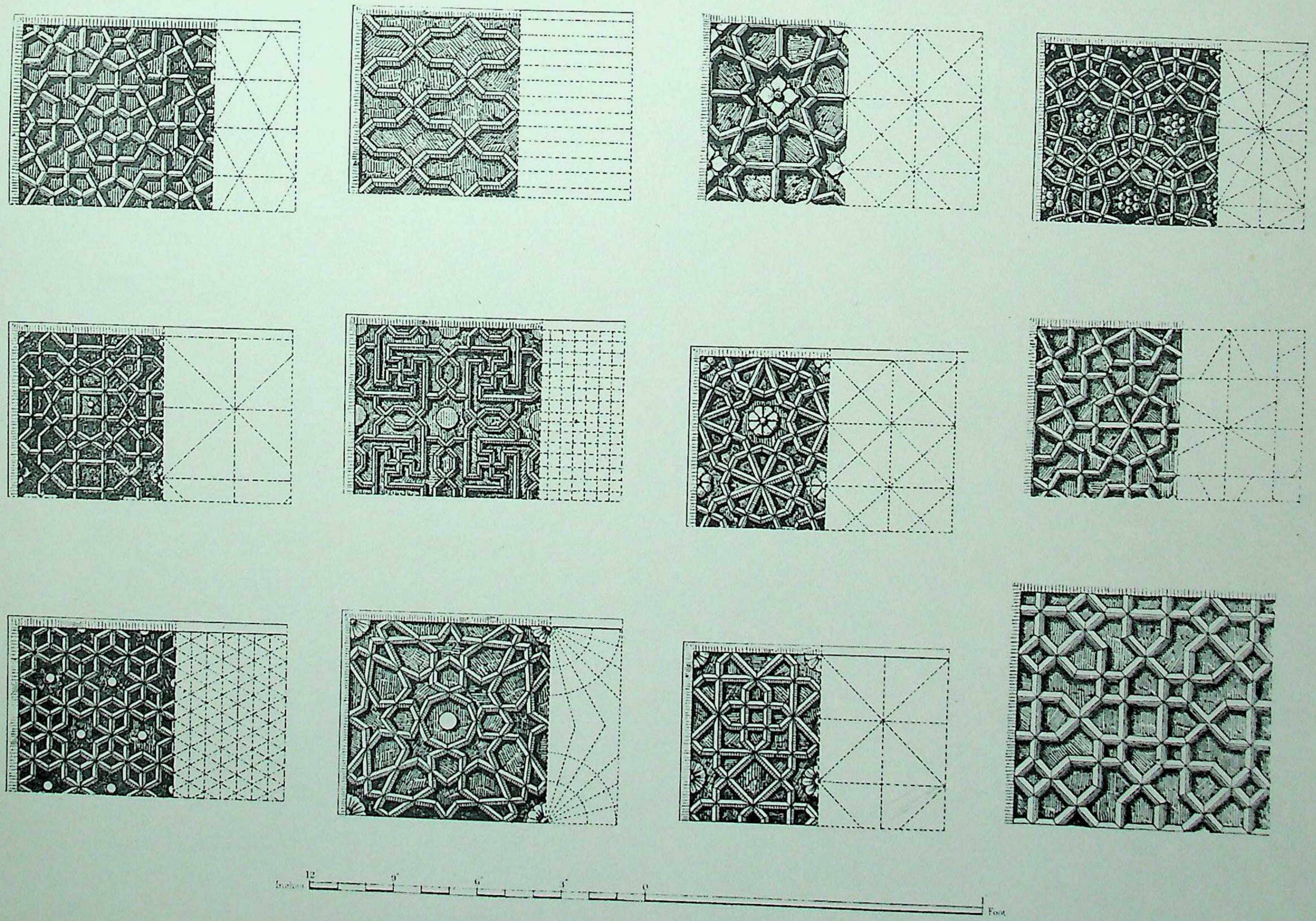
Survey of India Offices. Calcutta. September 1895

12'
9'
6'
3'
1'
Inches
Foot

FIGURES 1 & 2. DETAIL OF CARVED PANELS UPON PILASTERS. FIGURES 3 TO 8. DETAIL OF CARVED BORDERS, RAJAH BIRBAL'S HOUSE, FATEHPUR SIKRI

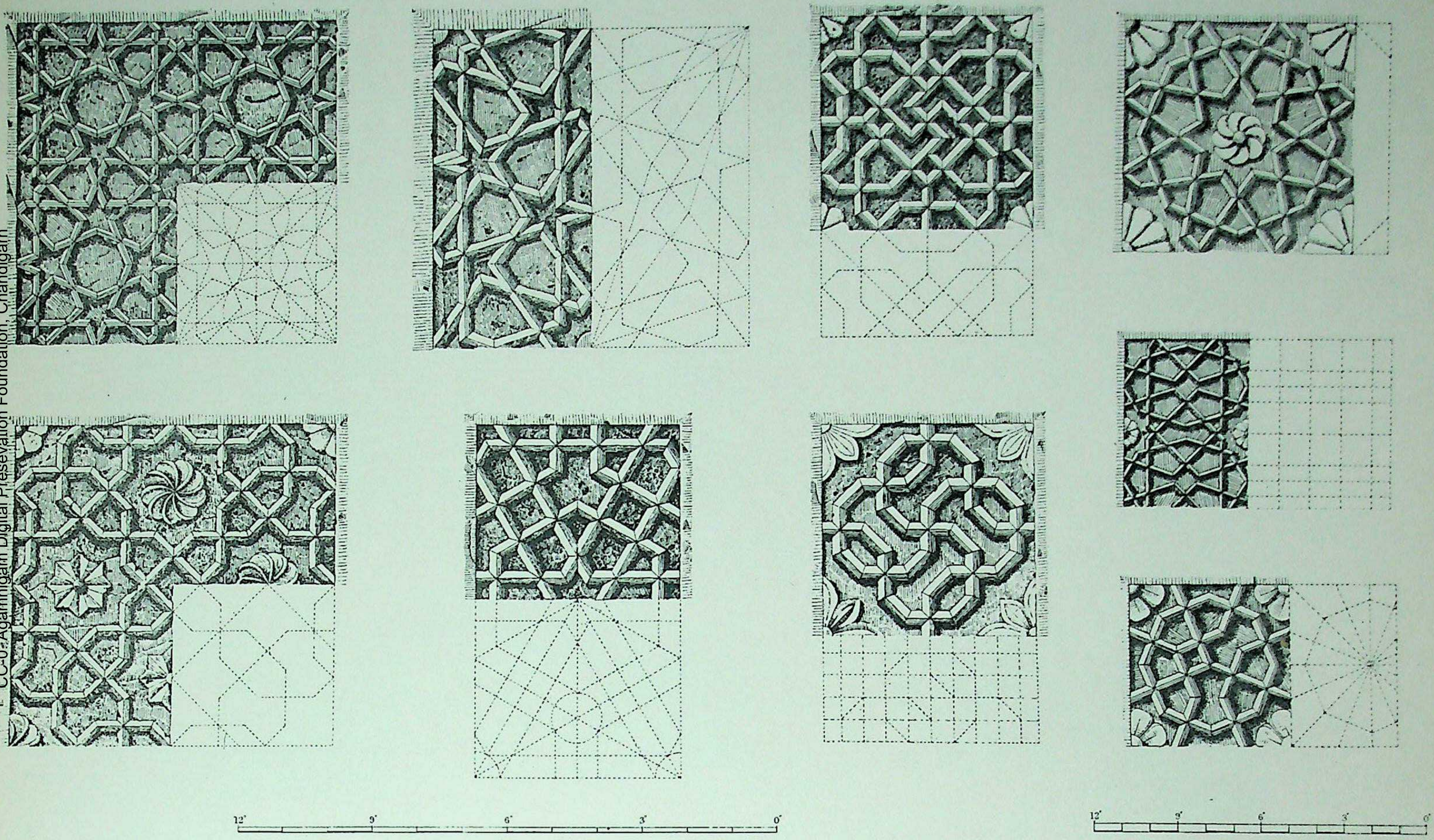

12"
9"
6"
3"
0
Inches
Foot

DETAILS OF GEOMETRICAL PATTERNS UPON THE PILASTERS, RAJAH BIRBAL'S HOUSE, FATEHPUR SIKRI.

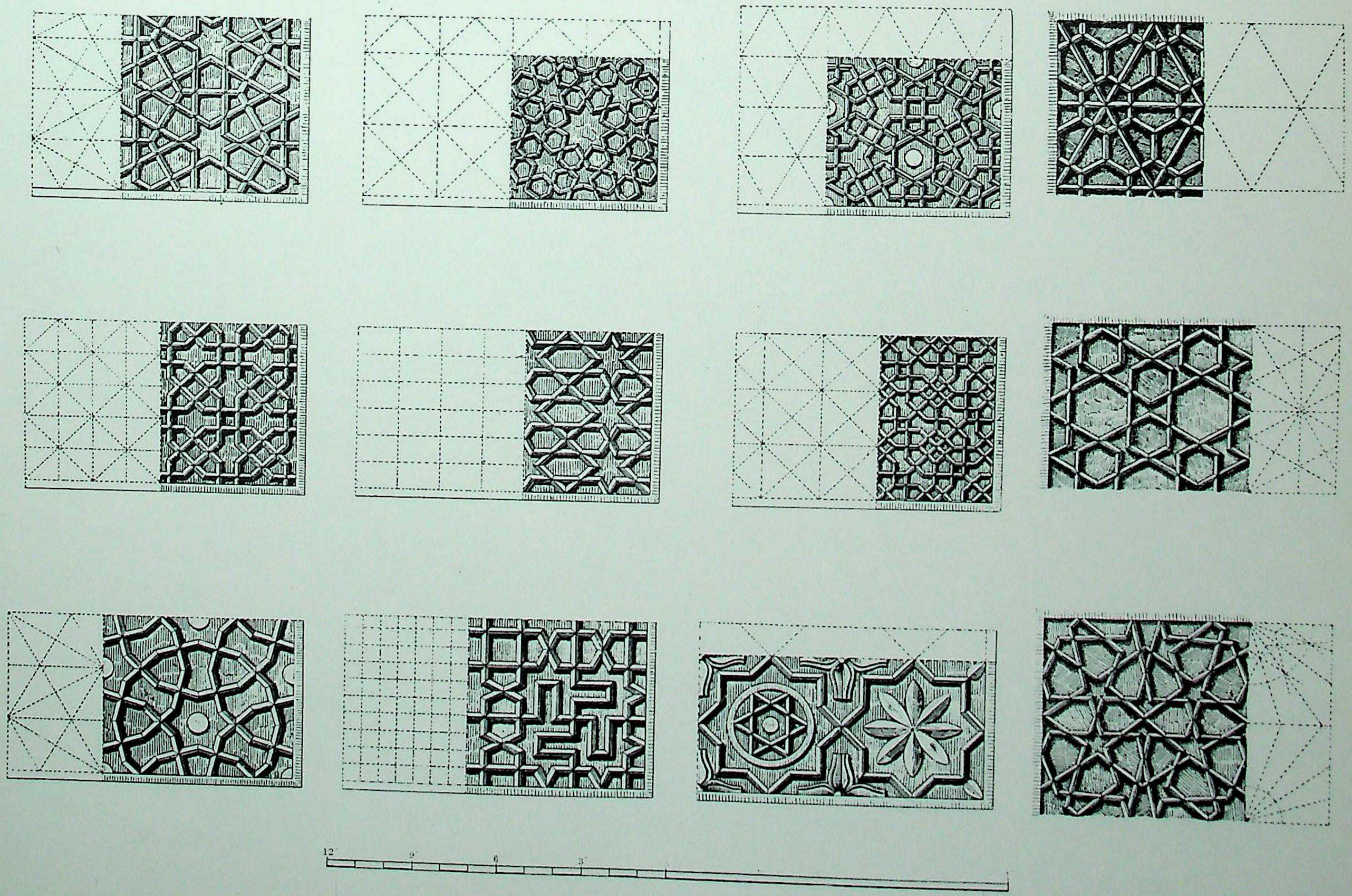

Inches
12
9"
6"
3"
0
Foot

DETAILS OF GEOMETRICAL PATTERNS UPON THE PILASTERS, RAJAH BĪRBAL'S HOUSE, FATEHPUR SIKRI

Govt Archæological Survey of N. W. P. & Oudh



DETAILS OF GEOMETRICAL PATTERNS UPON THE DADOES, RAJAH BIRBAL'S HOUSE, FATEHPUR SIKRI



DETAILS OF THE GEOMETRICAL PATTERNS UPON THE PILASTERS &c. RAJAH BIR BAL'S HOUSE, FATEHPUR SIKRI.

TECHNICAL ART SERIES, 1895.

PLATE VII.

FATEHPUR SÎKRÎ: JODH BAI'S PALACE.

CEILING OVER THE NORTH-EAST ANGLE ROOM ON THE GROUND FLOOR.

PLATE VII is diaper centre-piece from one of the ceilings in Jodh Bai's palace. It should be compared with the centre-piece given on Plate II of last year's issue of the Technical Art Series. It measures 6 feet 2 inches square, and is in stucco. The pattern is a most peculiar and difficult one, and in order to elucidate its construction a skeleton diagram is given on the bottom of the plate. The design emanates from the same school as the centre-piece shown on Plate II of last year's series; but it consists of a single instead of a double pattern, and is formed of straight instead of curved lines. The field, shown in black upon the diagram, is about one-eighth of an inch below the surface of the diaper. Ceilings of the kind were first floated over in stucco and brought to an even surface, and the design was then drawn or stamped upon it whilst moist and then afterwards very carefully cut out with a blunt instrument.

E. W. S.

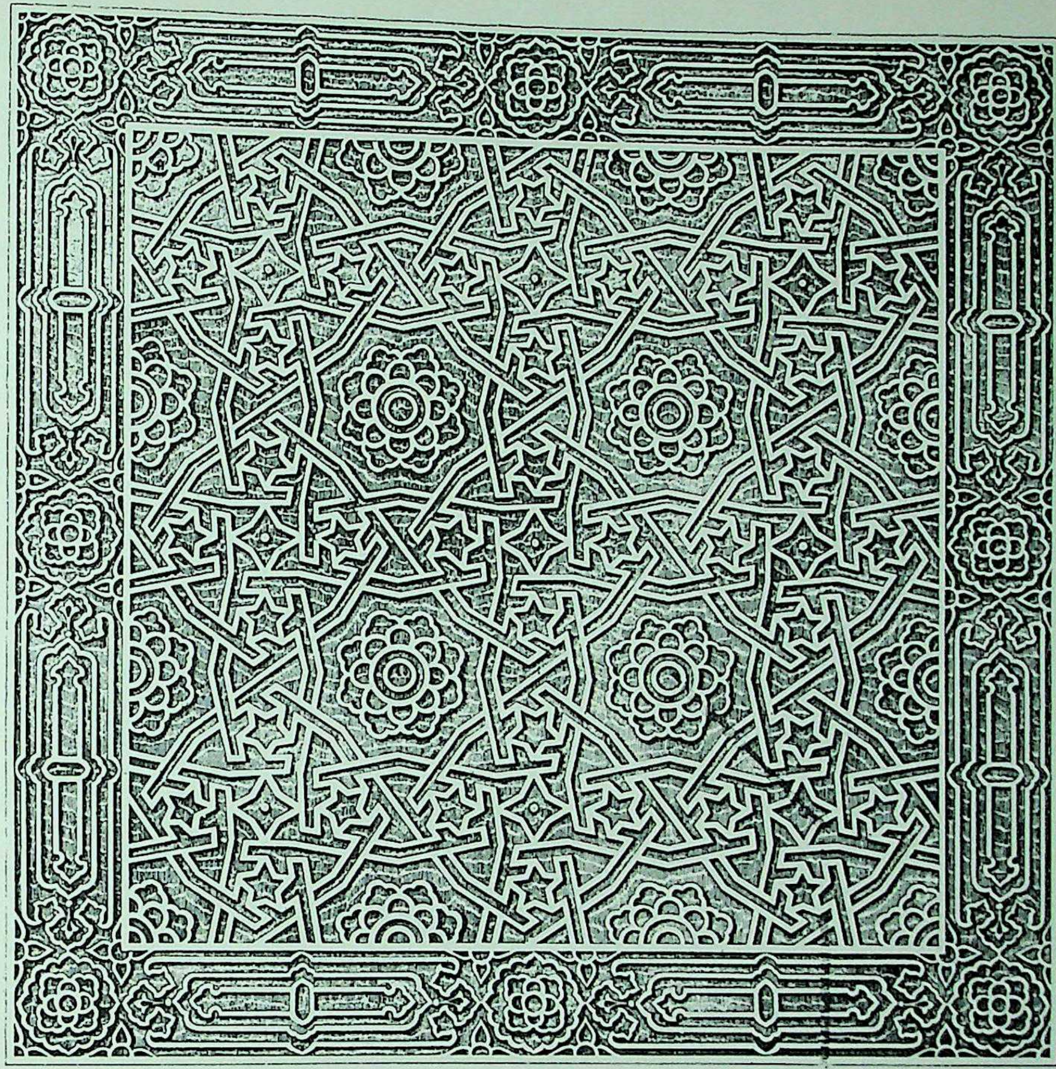
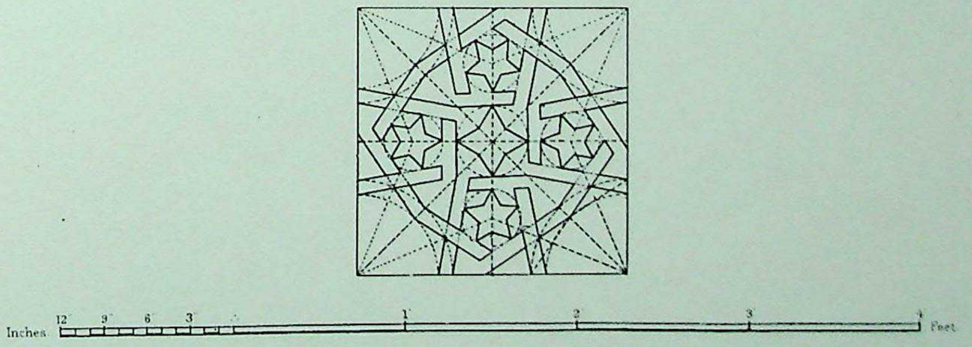


Fig 1.


Inches
12
9
6
3
1
2
3
4
Feet

CEILING OVER THE NORTH EAST ANGLE ROOM ON THE GROUND FLOOR. JODH BAI'S PALACE-FATEHPUR SIKRI

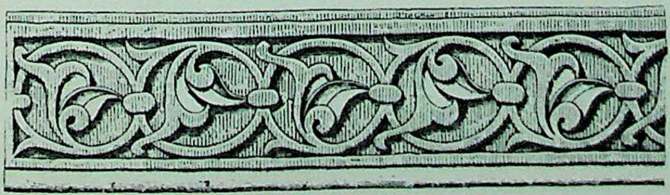


Fig 2.

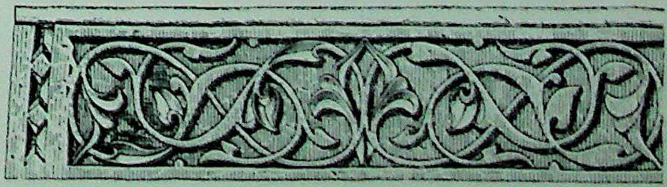


Fig 3.

Inches
12
9
6
3
0

DETAILS OF CARVED BORDERS. RAJAH BIRBAL'S HOUSE-FATEHPUR SIKRI

TECHNICAL ART SERIES, 1895.

PLATE VIII.

FATEHPUR SÎKRÎ: JODH BAI'S PALACE.

PERFORATED RED-SAND-STONE PANEL.

ON the north side of Jodh Bai's palace at Fatehpur Sîkrî, from which the ceiling shown on the previous plate is taken, is a viaduct leading from the upper floor of the palace to the Zanâna gardens. It is an unsightly structure and out of all keeping with the beautiful surroundings. Its bareness is relieved though by stately kiosques, bridging the passage at stated intervals. Occupying the side of one of these is the beautiful pierced panel depicted on Plate VIII. It measures 5 feet 3 inches in width and is 6 feet 2½ inches in height, exclusive of the frame round it which is 3¾ inches in thickness. The screen is an exceptionally fine one and is the only thing of the kind in Fatehpur Sîkrî, the whole of the other screen-work, for which Akbar's capital is so famous, being of geometrical patterns. The lines of the tracery, 2½ inches in thickness, although not so true as one meets with in Western Art, are extremely graceful and pleasing and show the sculptor was not hampered by hard-and-fast set rules so detrimental to true art. Designs of this sort were first drawn on the stone by a *pointer*, and from this rough drawing the mason worked, varying the design here and there, as his fancy led him. In the centre of the screen is a small panel, one foot one and three-quarter inches by one foot six and a half inches, inclosed by a goffered border three inches in width. The left side does not coincide with the right, and from its unfinished appearance it is probable that the slab cracked before completion, and the mason feared to finish it, lest the vibration from the chiselling should cause further and irretrievable injury.

Flowing tracery was introduced subsequent to Akbar's reign, and the screen would therefore hardly form a part of the original design of the viaduct.

Fig. 2 portrays a portion of the ceiling covering the north-west ground floor room of Bîr Bal's house at Fatehpur Sîkrî. The ceiling is in stone and is made up of nine monoliths extending from wall to wall, a distance of 16 feet, varying from 1 foot 3 inches to 2 feet 1 inch in thickness. The surface is divided into twenty-five sunk panels, surrounded by raised borders, carved with geometrical designs. In the centre of each panel and adding materially to the design is a richly carved leaf-patera. Round the outer sides of the ceiling is a border 1 foot 2 inches in width splendidly carved with a handsome and graceful scroll interwoven with a subordinate spiral scroll enriched with leafage, etc. The slabs of stone are supported on a bold cornice resting on an arched entablature running round the upper part of the room. They are united by iron cramps, and are overlaid with concrete, finished off in cement, to form the floor of the upper rooms

E. W. S.

GovT ARCHÆOLOGICAL SURVEY OF N. W. P. & OUDH.

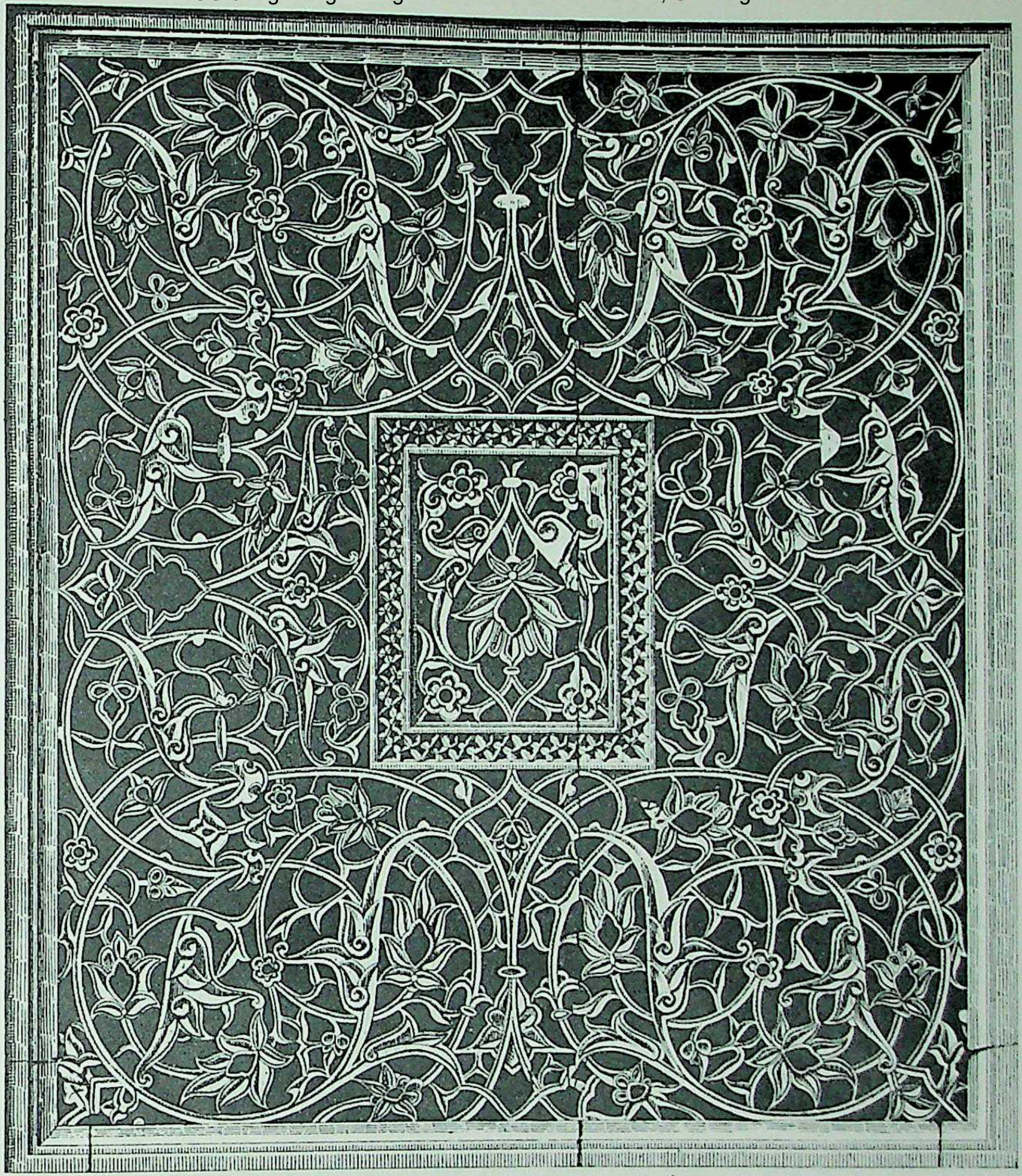


Fig 1.

Inches.
12"
9"
6"
3"
1'
2'
3'
4'
Feet.

PERFORATED RED SANDSTONE SCREEN PANEL FROM FATEHPUR SIKRI

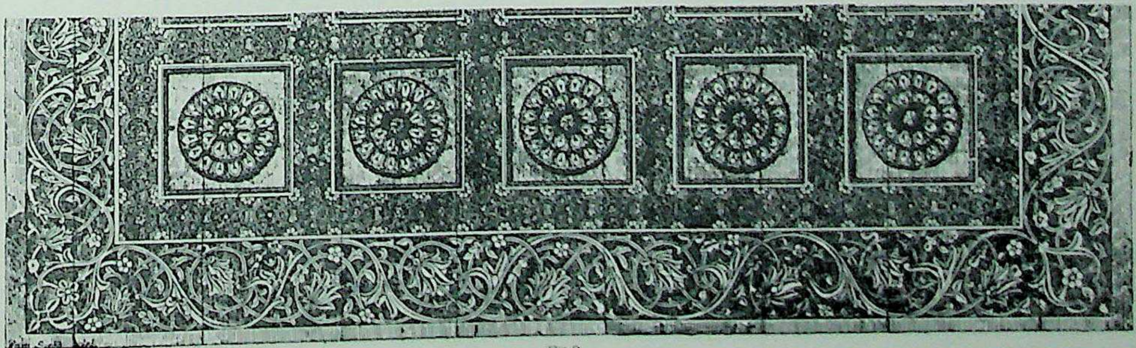


Fig 2.

Inches.
12"
6"
1
2
3'
4'
5'
6'
7'
8'
9'
Feet.

RED SANDSTONE CEILING ON THE GROUND FLOOR RAJAH BIRBALS HOUSE, FATEHPUR SIKRI

Survey of India Offices, Calcutta, October 1895.

TECHNICAL ART SERIES, 1895.

PLATES IX, X, AND XI.

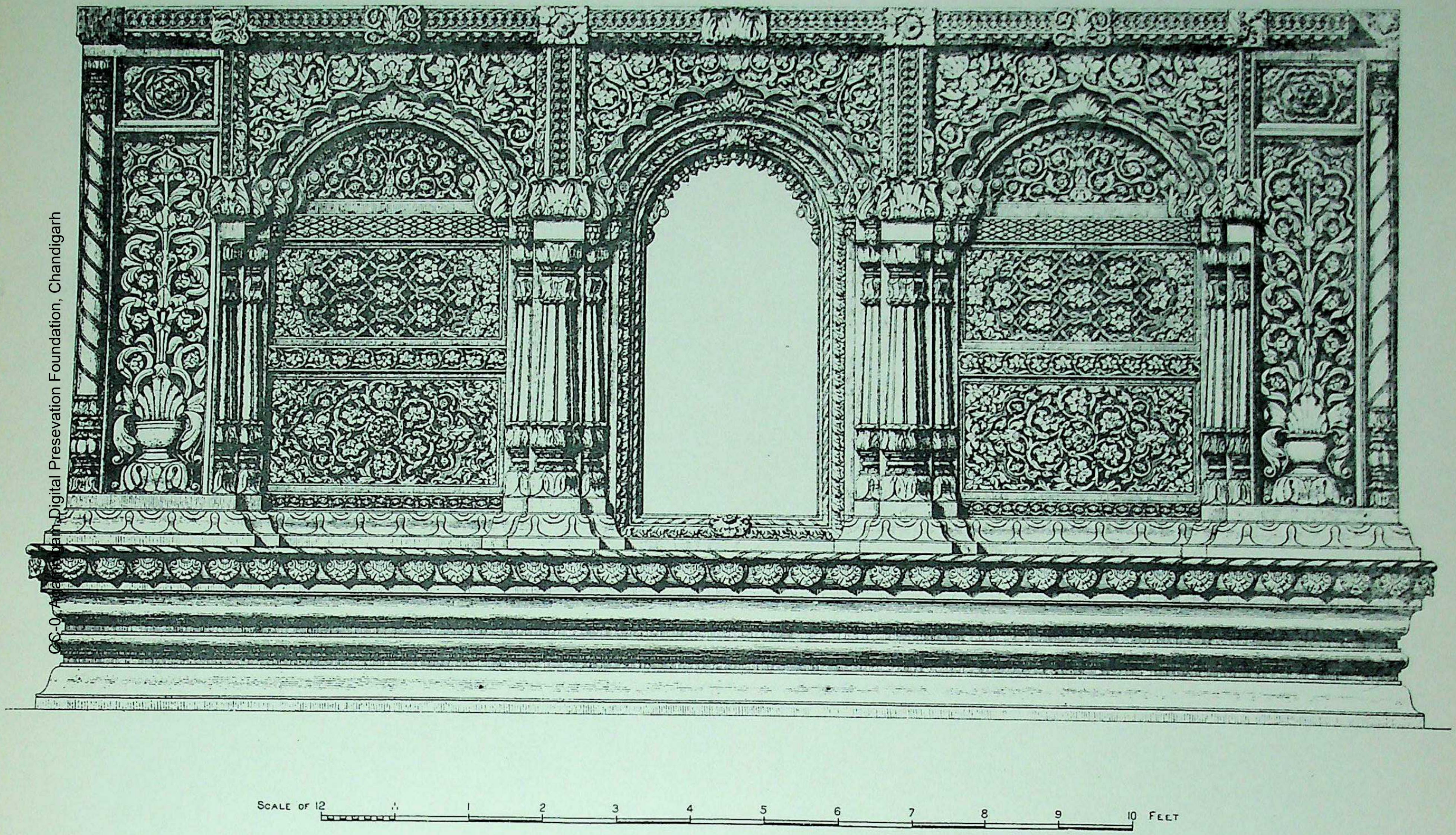
TOMB OF THE LATE NAVÂB AT PATHÂRI, CENTRAL INDIA.

THIS unfinished tomb, built quite recently, stands in a garden to the north of the village of Pathâri, which is situated about 8 miles from Kalhar, the nearest railway station on the Indian Midland Railway. The building, though small, was intended to be exceedingly ornate, but it was built only as high as the top of the side walls and was then left, owing to the death, it is said, of the architect and builder, a native of Etâvâ near Bina Junction. There appears to be no intention of the present Navâb to finish it, and it is already beginning to be overrun with grass and weeds. In plan it is very simple, being a square apartment with an entrance on the west, surrounded by a broad corridor and outer walls, in which are four wide entrances, one in the centre of each side. The material is, throughout, the sandstone of the locality, which is quarried out in huge slabs from the hillside below the village. The nature of the stone permits its being used in buildings in a style applicable to wood—a plank, post, and beam construction. What appears from outside such buildings as huge blocks of stone are no more than thin slabs set up edgewise and held in slots in upright stone posts. The walls of the larger buildings are thus constructed of an inner and outer thin shell, the interior being filled in with earth or broken stone.

Plate IX shews the western front of the inner enclosure of the tomb, and X and XI details from the other three sides. The work is cut in bold relief, and much of it savours more of classic than of Hindu work. The architect, no doubt, had access to European books of design, but has been most successful in its application in the present instance. The roof has not been begun, but in all probability it would have followed, generally, the outline of the Itimâd-ad-Daula at Agrâ.

H. COUSENS.

Gov^T Archæological Survey of Western India N^o 1155.

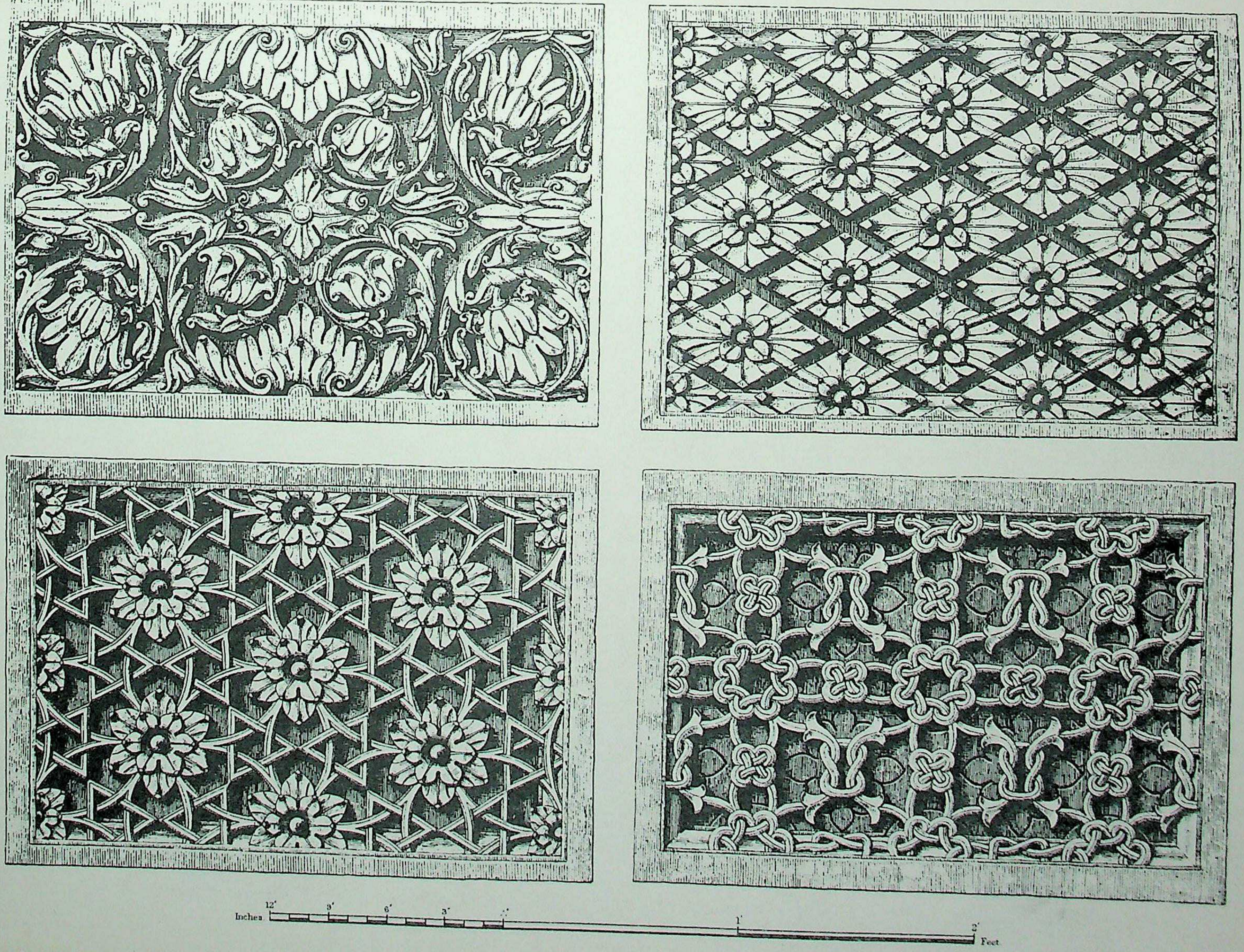

Scale of 12
6
1
2
3
4
5
6
7
8
9
10 Feet

FRONT ELEVATION OF TOMB OF LATE NAVAB, PATHARI, C.I.

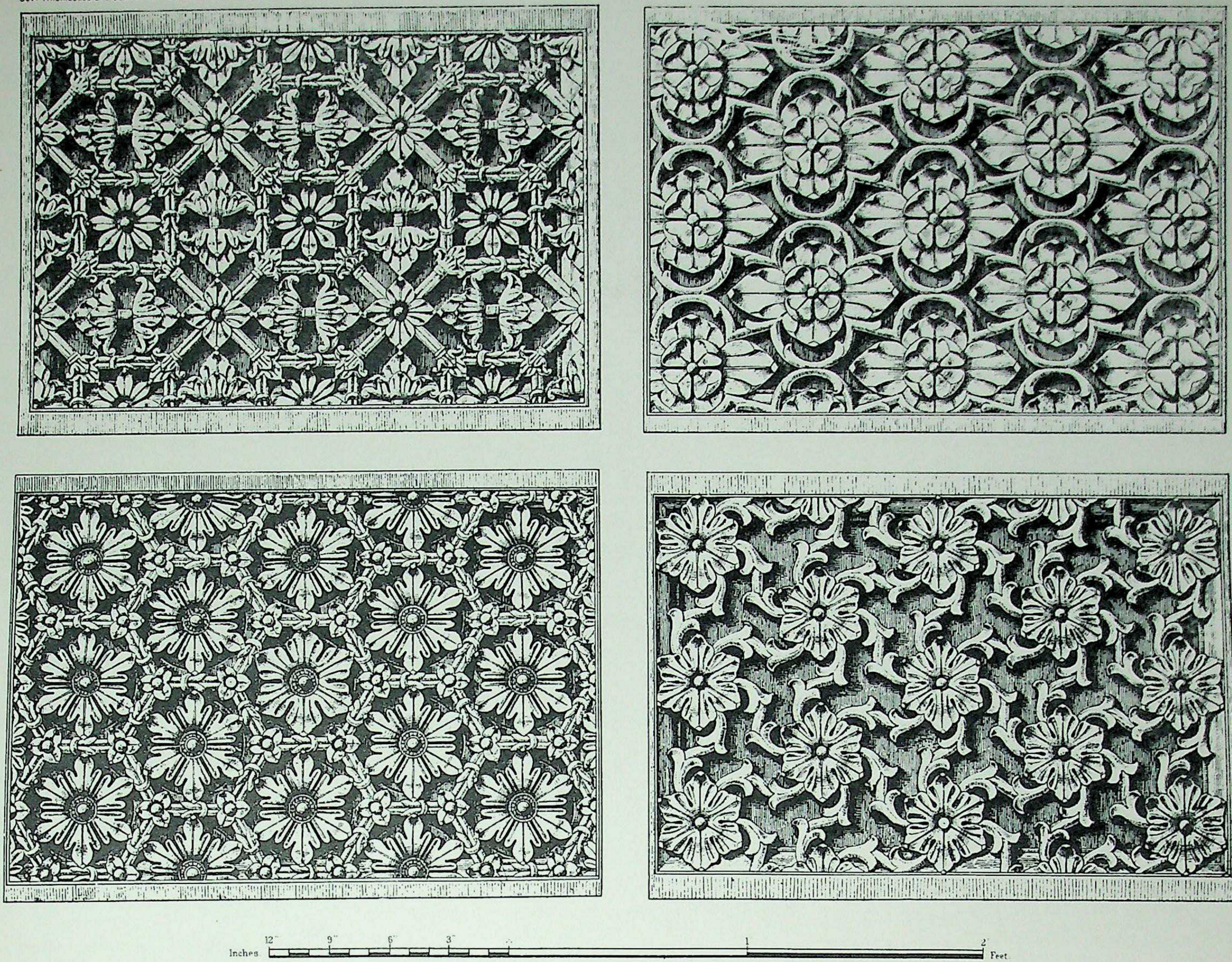
TECHNICAL ART SERIES–1895.

GOVT ARCHÆOLOGICAL SURVEY OF WESTERN INDIA. Nº 1154.

PLATE X.


Inches
12'
9'
6'
3'
1'
2'
Feet

DETAILS OF SCULPTURE, TOMB OF THE LATE NAVAB, PATHARI, C.I.


Inches
12"
9"
6"
3"
1
2
Feet

DETAILS OF SCULPTURE, TOMB OF THE LATE NAVAB, PATHARI. C.I.

TECHNICAL ART SERIES, 1895.

PLATE XII.

SHRINE DOOR OF TEMPLE OF SAMKARA AT BHERAGHAT NEAR JABALPUR.

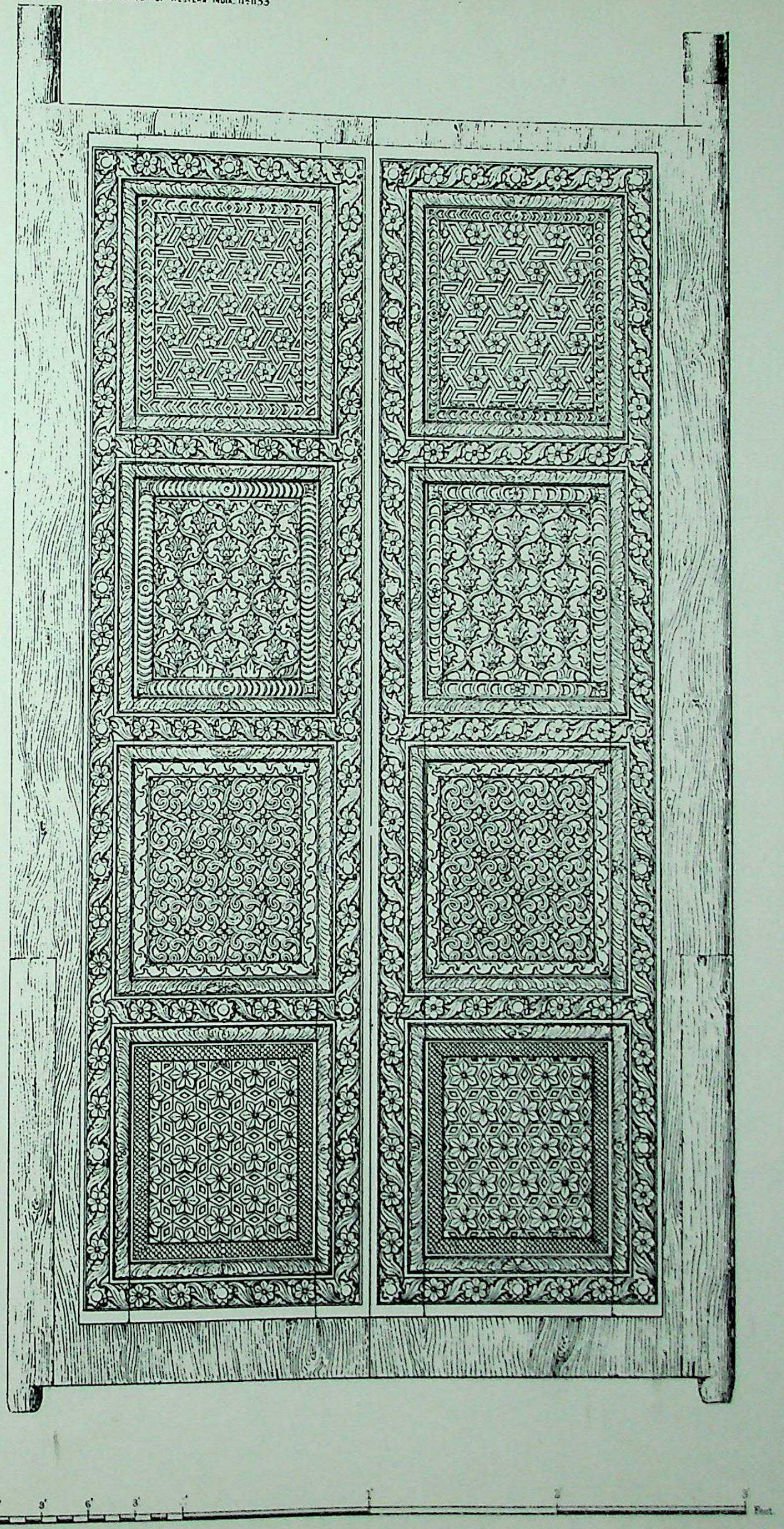
THE wood work, and especially the doors of the older temples, which, as a rule, are now in disuse, have disappeared wholly so that we have no specimens left to us of the elaborately carved doors of those times. But, judging from the remains of carved wood work of a couple of centuries ago, found decorating the exteriors of old dwelling houses in various parts of the country, the old temple doors must have been very fine indeed. The present plate, No. XII, depicts a more or less modern door to the shrine of the temple of Saṁkara on the hill at Bherâghât, near Jabalpur, and just above the celebrated "Marble Rocks" of the Narbadâ. The design is more stiff and geometric than is found in older work and is not nearly so deeply cut. On the whole, however, it is a very pleasing and neat design.

H. COUSENS.

TECHNICAL ART SERIES-1895.

GovT ARCHÆOLOGICAL SURVEY OF WESTERN INDIA. No.1133

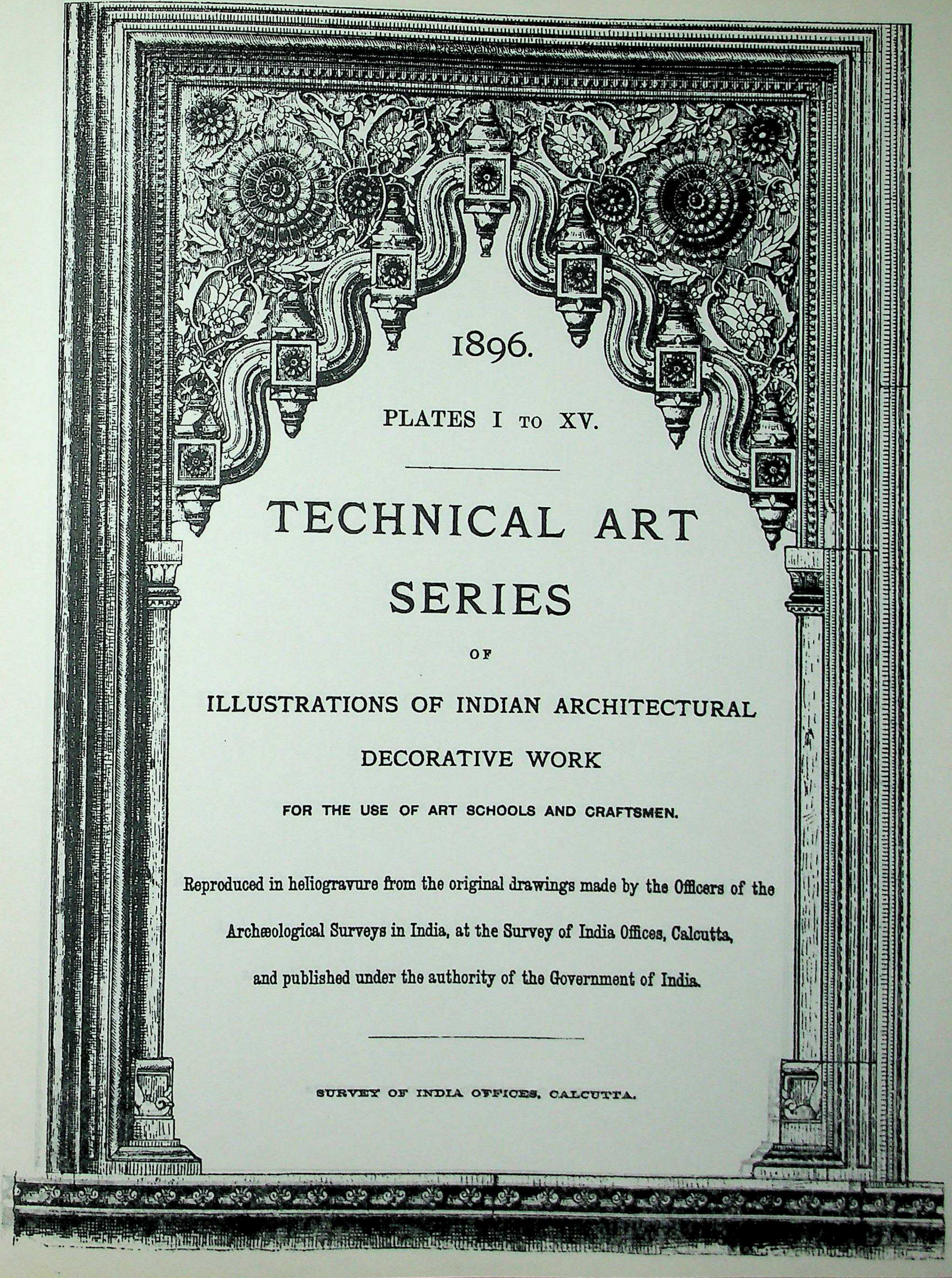
PLATE XII.



WOODEN SHRINE DOOR OF GAURI SAMKARA TEMPLE, BHERAGHAT NEAR JABALPUR

Photo-etching.

Survey of India Offices, Calcutta, November 1895.



1896.

PLATES I TO XV.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the Archæological Surveys in India, at the Survey of India Offices, Calcutta, and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

PLATE I.—Entrance from the Ambulatory to the Cenotaph Chamber (interior side), Salim Chisti's Tomb, Fatehpur Sikri.

" II.—Detail of the Porch Columns, Salim Chisti's Tomb, Fatehpur Sikri.

" III.—Details of Serpent Brackets supporting eaves round outer sides of the Tomb, Salim Chisti's Tomb, Fatehpur Sikri.

" IV.—Marble Screen enclosing sides of the Ambulatory, Salim Chisti's Tomb, Fatehpur Sikri.

" V.—Marble Screens enclosing Ambulatory, Salim Chisti's Tomb, Fatehpur Sikri.

" VI.—Marble Screens enclosing Ambulatory, Salim Chisti's Tomb, Fatehpur Sikri.

" VII.—Small entrance on Marble Screen enclosing the East side of the Ambulatory, Salim Chisti's Tomb, Fatehpur Sikri.

" VIII.—Screens enclosing Ambulatory, Salim Chisti's Tomb, Fatehpur Sikri.

" IX.—Screens round sides of Islam Khan's Tomb, Fatehpur Sikri.

" X.—Screens enclosing the sides of Islam Khan's Tomb, Fatehpur Sikri.

" XI.—Screens within the Zanana Rauza, Fatehpur Sikri.

" XII.—Details of Door-jamb of Mediæval Jaina Temple, formerly at Agra.

" XIII.—Finial of Musulman Tomb-stone near Rohri in Sindh.

" XIV.—Window in wood-work and stained glass from the Asar Mahal, Bijapur.

" XV.—Window in wood-work and stained glass from the Asar Mahal, Bijapur.

TECHNICAL ART SERIES, 1896.

PLATE I.

FATEHPUR SÎKRÎ: SALÎM CHISHTI'S TOMB, ENTRANCE FROM THE AMBULATORY TO THE CENOTAPH CHAMBER.

SEVERAL illustrations appeared in Parts 1891, 1893, 1894, and 1895 of the Technical Art Series illustrative of the architecture of Fatehpur Sîkrî, Akbar's famous capital, built between the years 1556 and 1605 A.D.

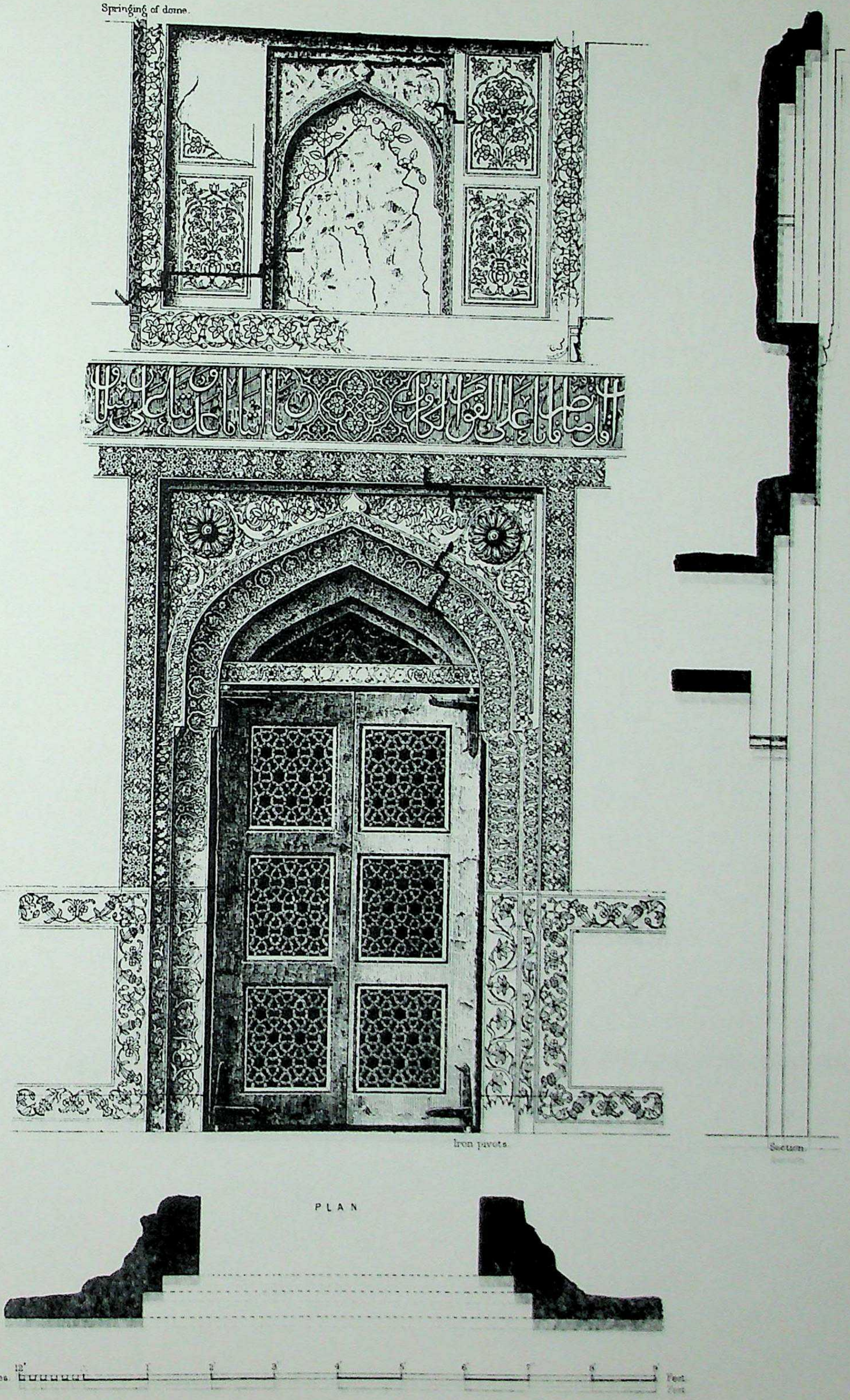
Plates I to XI, now presented, still further exemplify the style.

The Fatehpur Sîkrî buildings may be divided broadly into two classes, *viz.*, domestic and religious—amongst which may be included the tombs of the nobles. The plates given in previous parts of this series illustrated details of the domestic buildings, but those now presented are taken from the tombs.

Living at Fatehpur Sîkrî was a hermit named Salîm Chishti who was held in intense reverence by the people, and it was partly owing to him that Akbar built his capital at Sîkrî. After the saint's death, a lovely white marble mausoleum was erected to his memory. Plates I to VIII are taken from this mausoleum which is one of the finest and most chaste pieces of Moghul architecture extant. It stands on a marble podium or base 3 feet high and 59 feet square, and measures 47 feet 11 inches each way On the south side is a portico approached by a broad flight of white marble steps. In the centre of the mausoleum is a cenotaph chamber, the actual tomb being in a crypt beneath. Surrounding the cenotaph chamber is a broad ambulatory, enclosed by exquisite white marble screens.

The chamber is entered through an arched aperture, the doorway of which is of white marble in two leaves, decorated on the exterior side in color. The door swings on iron pivots in sockets cut in the lintel and threshold, fastened to the styles of the door by rough wrought iron straps. The jambs are ornamented with painted floral scrolls. In each leaf are three panels filled in with open geometrical tracery. Upon the spandrils of the arch over the door pateræ are carved in relief, and these are gilded, the field around being embellished with colored scrolls and lilies. As the drawing shows, above the spandrils is a broad band carved with texts from the Quran in raised Arabic characters; the wall space between this band and the springing of the dome covering the chamber is panelled and decorated with paintings. They are not of a high class though, and compare unfavourably with the fresco work on the reveals of the windows below. The illustration only shows the inner side of the door, put the outer side is even more ornate.

E. W. SMITH.


Springing of dome.
Iron pivots.
Section.
PLAN
Inches 12
1
2
3
4
5
6
7
8
9
Feet

ENTRANCE FROM THE AMBULATORY TO THE CENOTAPH CHAMBER (INTERIOR SIDE) SALIM CHISTIS TOMB, FATEHPUR SIKRI.

Survey of India Offices, Calcutta, September 1896

TECHNICAL ART SERIES, 1896.

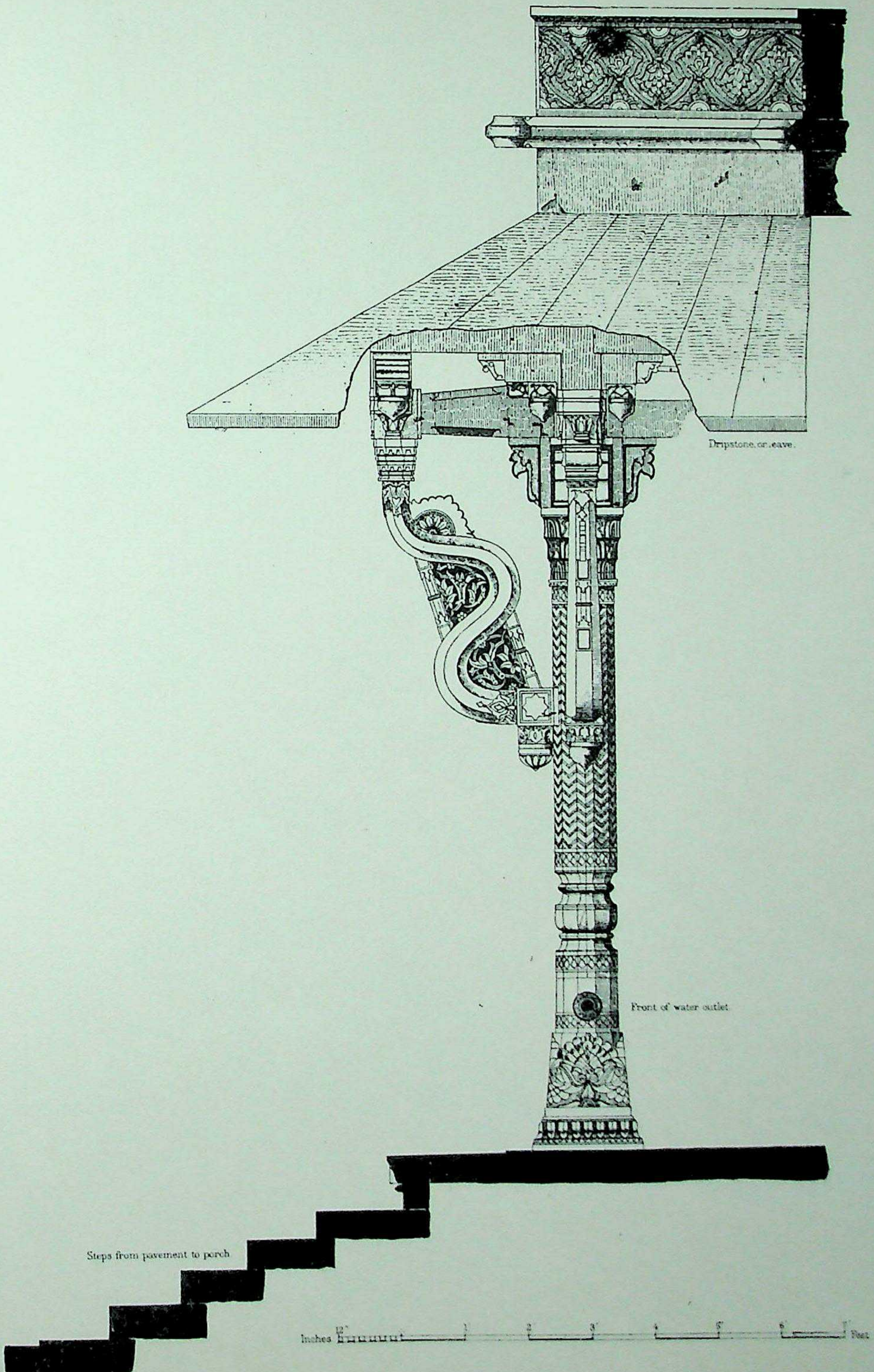
PLATES II AND III.

FATEHPUR SÎKRÎ: SALÎM CHISHTI'S TOMB. DETAIL OF THE PORCH COLUMNS, AND BRACKETS SUPPORTING EAVES ROUND THE OUTER SIDES OF THE TOMB.

PLATE II is a detail of the columns supporting the porch in front of Salîm Chishti's shrine. The porch measures 11 feet 6 inches × 11 feet 0 inches to the outside of the plinth and is the same height as the façades. It is ceiled by a domical roof in marble supported on lintels or breastsummers upheld by duo-decagonal columns. The shafts of the columns are in two pieces, and the sides are carved with the chevron pattern, so common to the Moghul architecture of Akbar's time. A joint occurs 10 inches above the top of the base, and the other about 1 inch below the necking round the top of the shaft. The bases and capitals of the columns are beautifully carved. Two of the columns, the outer ones, are hollowed out down the inside to carry rain water off from the roof of the porch. The outlet is just above the base of the column, and is seen in front elevation on the illustration. It is beautifully carved with water-leaves.

Round the top of the porch is a deep eave or drip, supported on a wall-plate carried on serpent-shaped brackets in marble, which appear in front and side elevation on Plate II. In the diagram, a portion of the dripstone has been omitted to show the wall-plate. The eaves extend on round the sides of building and are supported in the same way. As the illustration shows, under the twists of the brackets, are moulded struts, and the spaces between the struts and the brackets are occupied by beautiful pieces of pierced tracery. In nearly every instance the tracery is geometrical in design, but in one or two cases, as shown on Fig. 1, Plate II, it takes a floral form. The bottom of the brackets are let in to piers between the marble screens enclosing the sides of the tomb. Figs. 2 and 3, Plate III, show a couple of the brackets in side elevation, but in Fig. 1 the front of one of the brackets also appears. Over the top of the bracket a plan of it is shown.

E. W. SMITH.


Dripstone, or eave.
Front of water outlet.
Steps from pavement to porch
Inches 12" 1 2' 3' 4 5' 6' 7' Feet

DETAIL OF THE PORCH COLUMNS, SALIM CHISTIS TOMB, FATEHPUR SIKRI

Photo-etching.

Survey of India Offices Calcutta, August 1896

GovT ARCHÆOLOGICAL SURVEY OF N.W.P. & OUDH

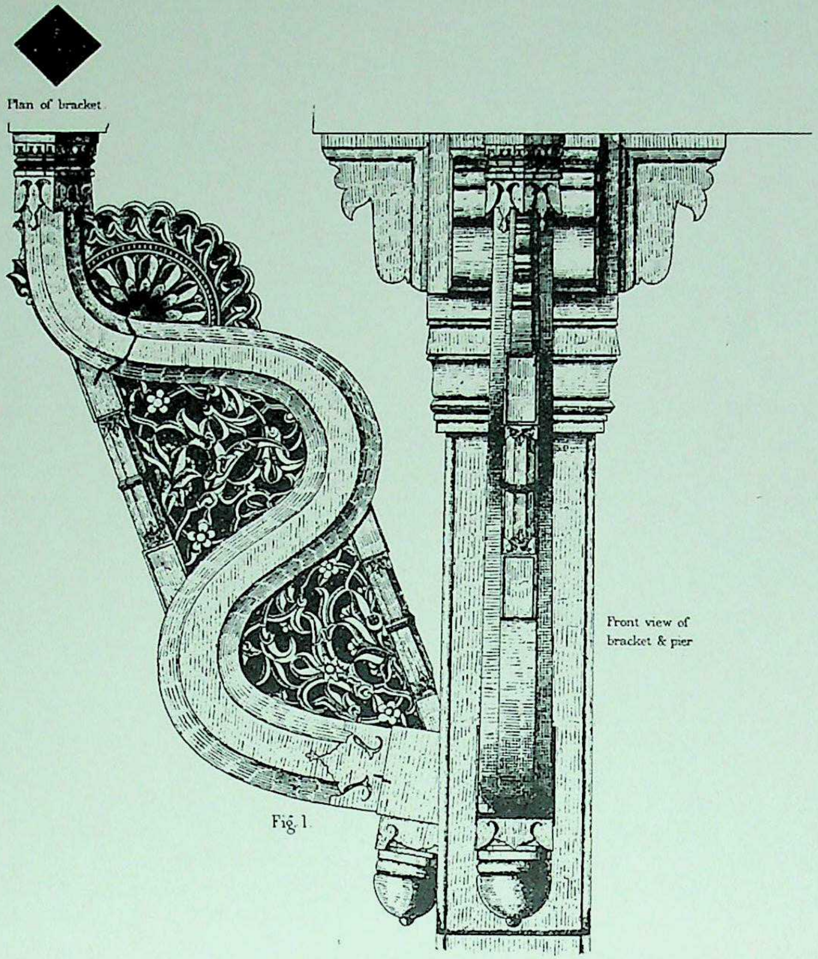

Plan of bracket.
Front view of bracket & pier

Fig. 1.

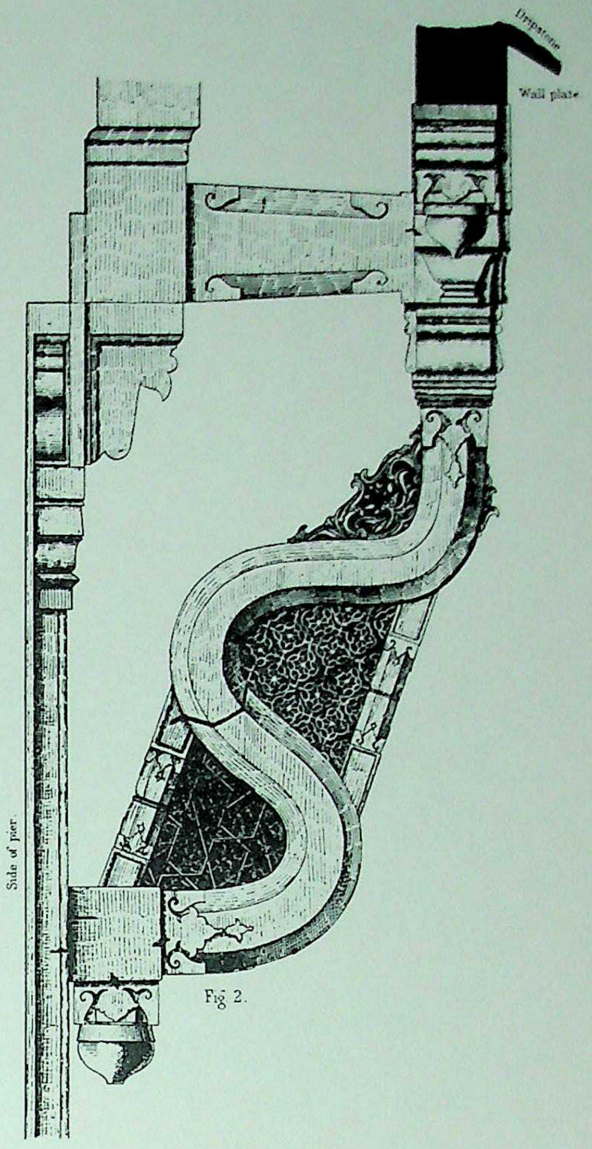

Dripstone
Wall plate
Side of pier.

Fig. 2.

Inches
12"
9"
6"
3"
1'
2'
3'
4'
Feet.

DETAILS OF SERPENT BRACKETS SUPPORTING EAVES ROUND OUTER SIDES OF THE TOMB. SALIM CHISTIS TOMB, FATEHPUR SIKRI

Survey of India Offices, Calcutta, October 1896

TECHNICAL ART SERIES, 1896.

PLATES IV TO VIII.

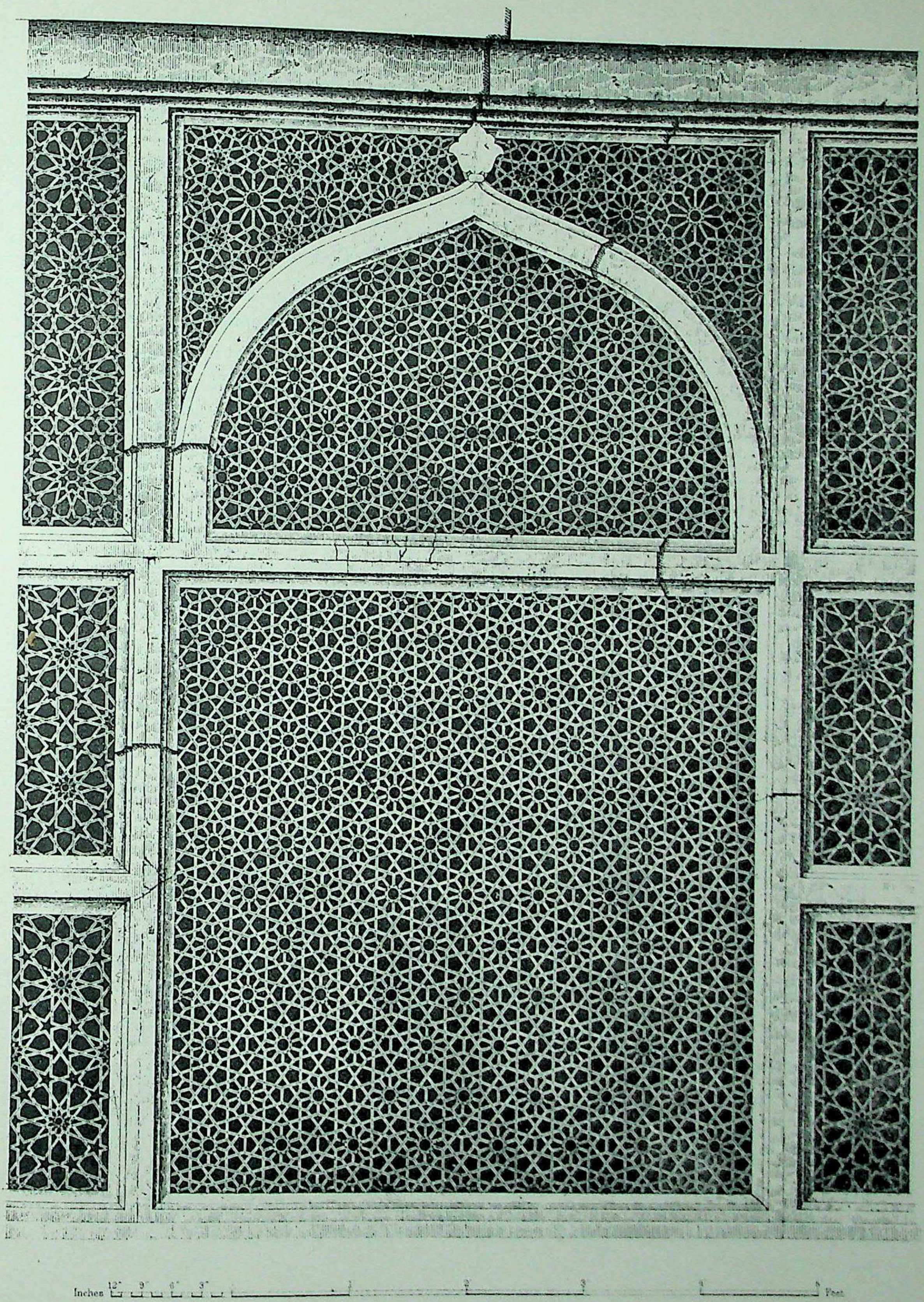
FATEHPUR SÎKRÎ: SALÎM CHISHTI'S TOMB. MARBLE SCREENS ENCLOSING THE AMBULATORY.

PLATES IV to VIII exhibit details of the marble screens enclosing the outer sides of the ambulatory round the cenotaph chamber of Salîm Chishti's tomb. Very few of the designs of the screens are alike, but here and there a pattern has been repeated. The screen shown on Plate VII is from the east side of the building. The small door in the centre of the screen is not often used, and is, as a rule, opened only during the annual Ramzan festival. It is in two panelled leaves chamfered at the sides and is overlaid with copper. The styles and rails are studded with small rosettes and the meeting rail is stop-chamfered. The door swings in sockets, and is secured on the inside by hasp, eye and padlock. The architraves are of white marble, and are carved with oblong star-shaped panels.

The screen shown on Plate V is from the south side of the building. It is one of the finest in the whole of Fatehpur Sîkrî, and is unsurpassed by any in Northern India. From a distance it looks like lace. It is in two pieces of marble, the joint occurring across the transom.

Most of the screens are divided by mullions and transoms into several divisions, but this is more so the case with the screens enclosing the east and west sides of the mausoleum, one of which is exhibited on Plate VI. As mentioned before, in the design of the screens, geometrical tracery has been invariably employed, but in a few instances flowing tracery has been introduced in the spandrils. An example of one is presented on Plate VIII. At the time of the erection of the tomb flowing tracery had not come into vogue; it was only just becoming fashionable, and hence it is seldom met with at Fatehpur Sîkrî.

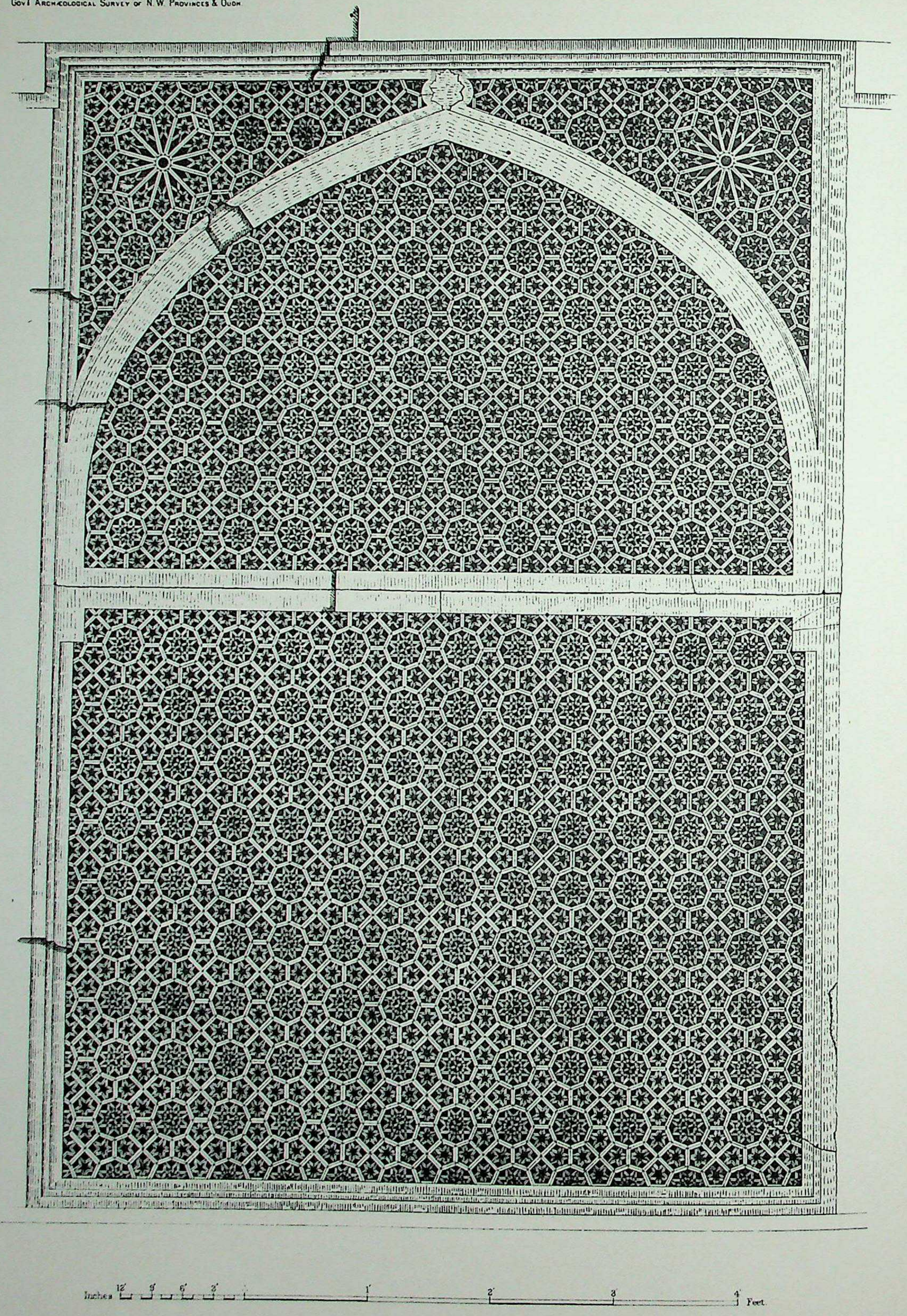
E. W. SMITH.


Inches
12"
9"
6"
3"
1
2
3
4
5
Feet

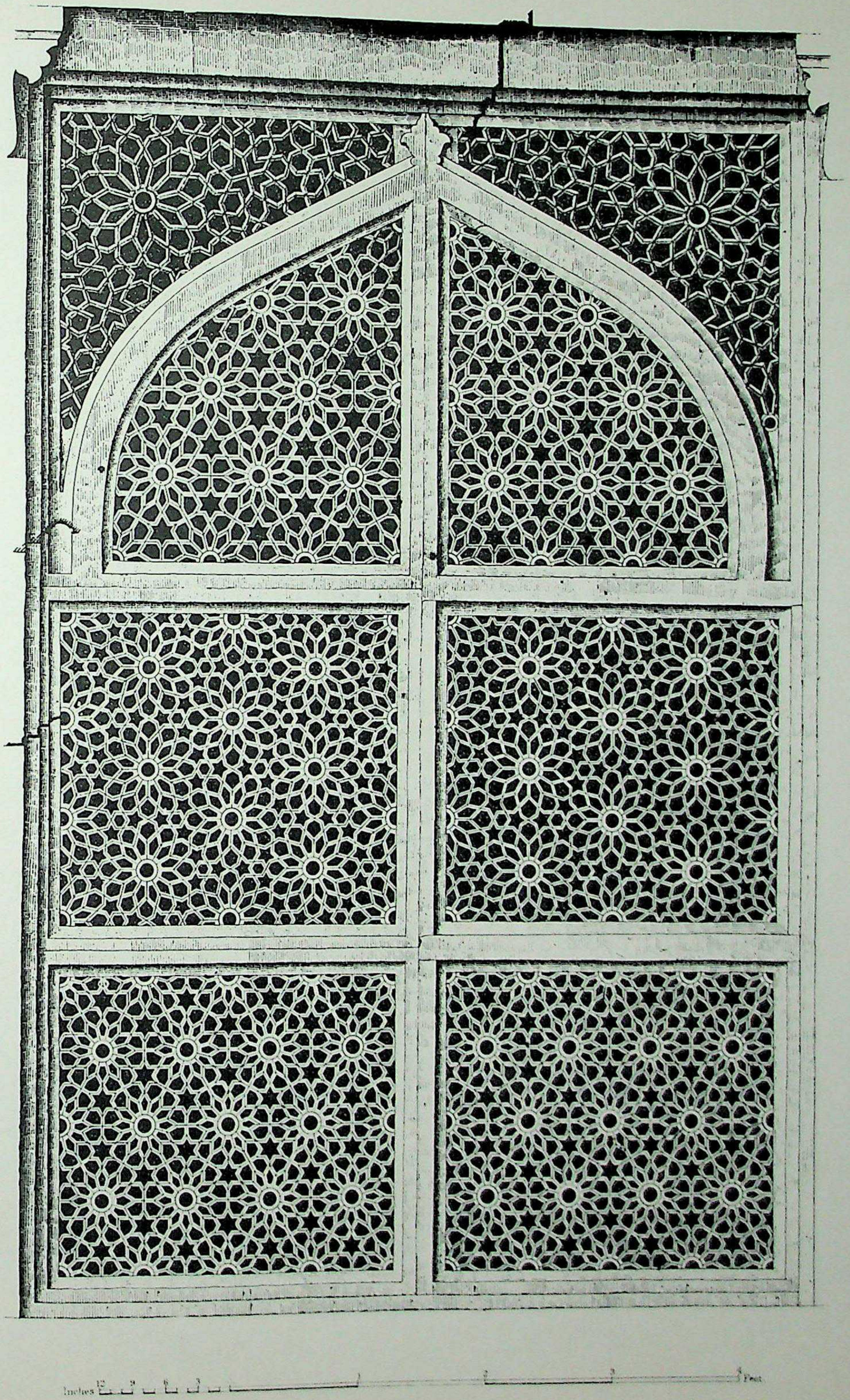
MARBLE SCREEN ENCLOSING SIDES OF AMBULATORY, SALIM CHISTIS TOMB, FATEHPUR SIKRI

Survey of India Offices, Calcutta, August 1896

Govt Archaeological Survey of N.W. Provinces & Oudh


Inches 12' 9' 6' 3'
1'
2'
3'
4' Feet.

MARBLE SCREENS ENCLOSING AMBULATORY, SALIM CHISTIS TOMB, FATEHPUR SIKRI.

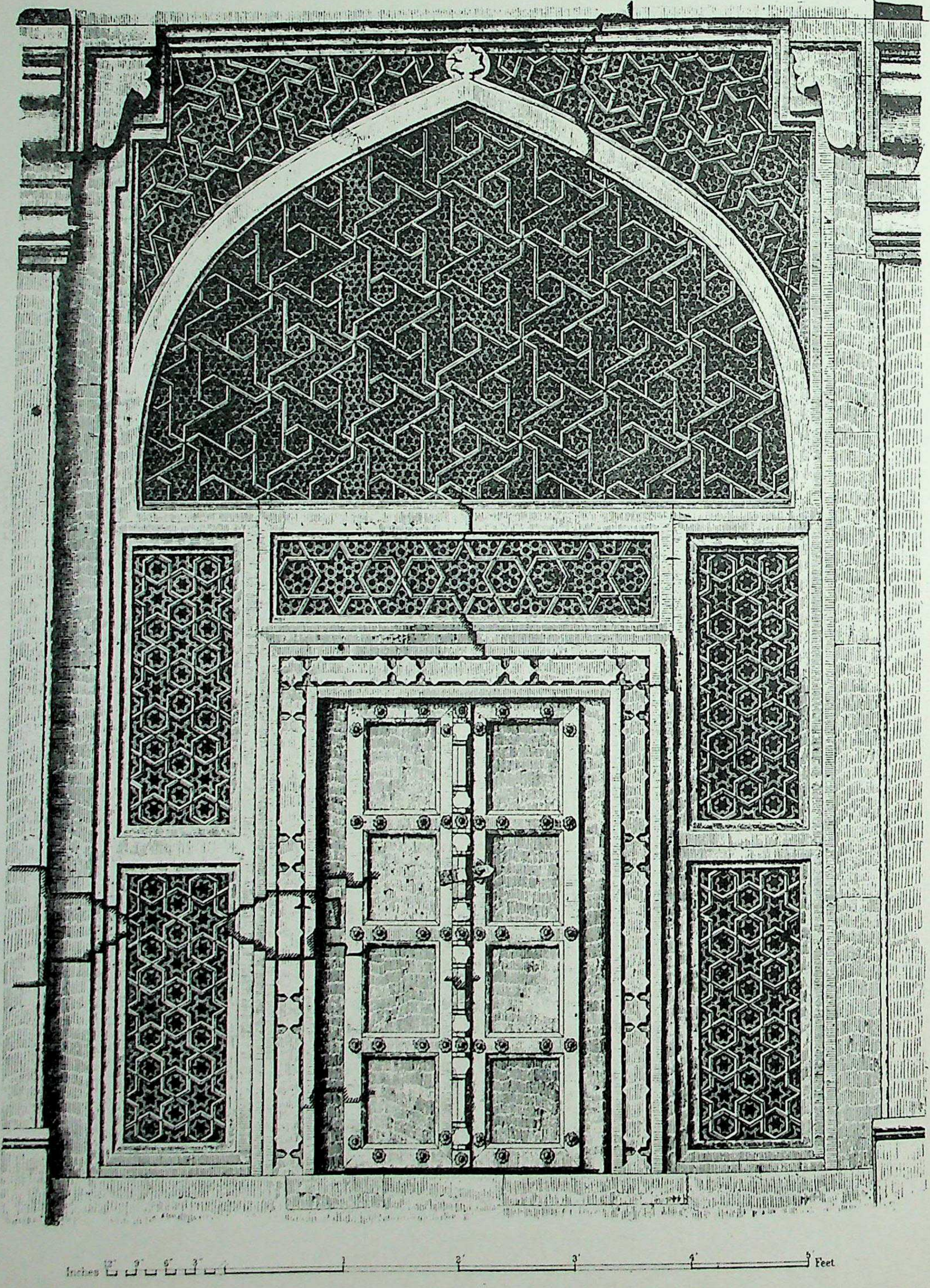

Inches 12 9 6 3
1
2
3
4 Feet

MARBLE SCREENS ENCLOSING AMBULATORY. SALIM CHISTIS TOMB FATEHPUR SIKRI

PLATE VII.

TECHNICAL ART SERIES - 1896.

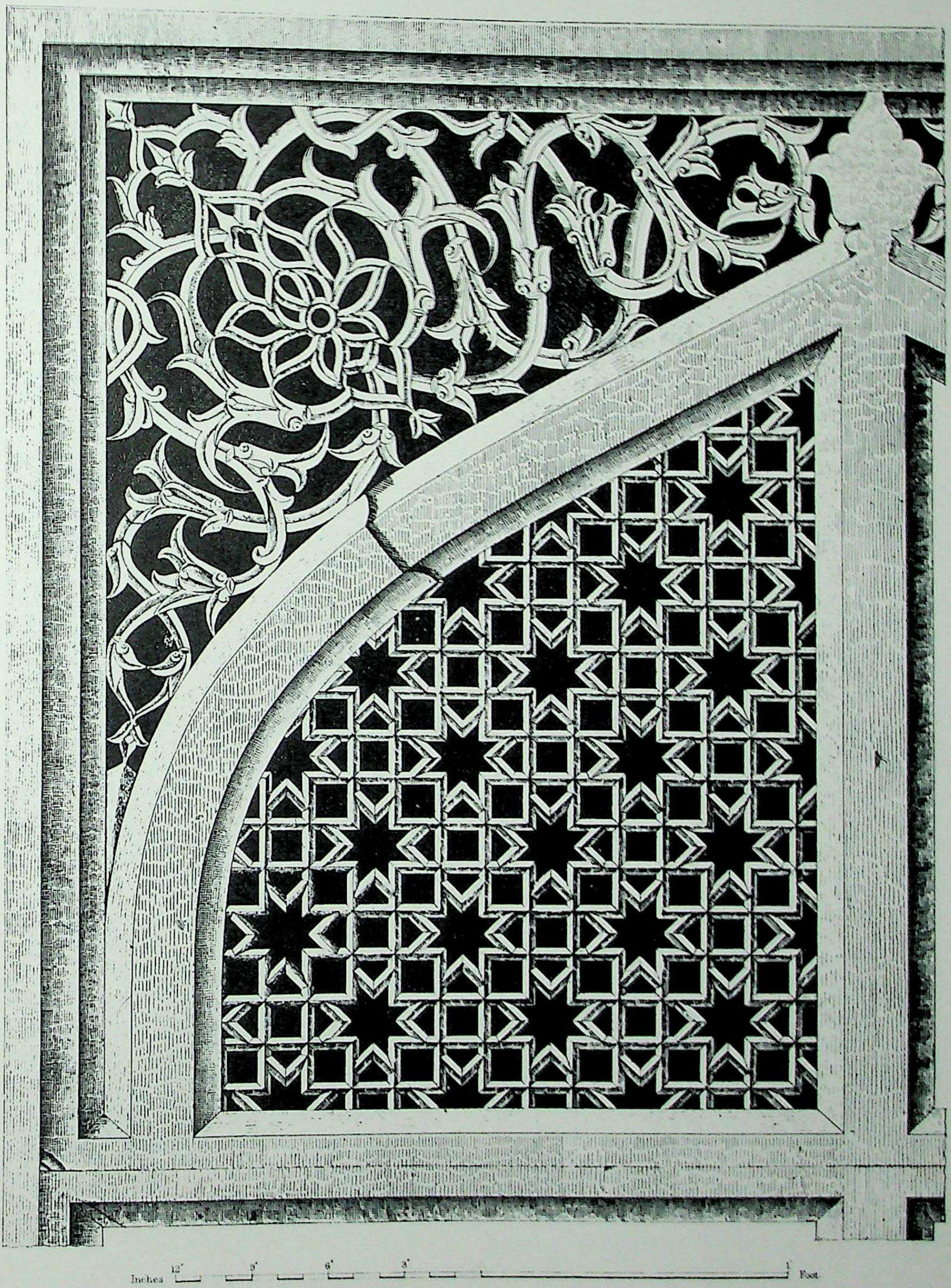
GOVT ARCHÆOLOGICAL SURVEY OF N.W. PROVINCES & OUDH.



SMALL ENTRANCE ON MARBLE SCREEN ENCLOSING THE EAST SIDE OF THE AMBULATORY. SALIM CHISTIS TOMB, FATEHPUR SIKRI.

Survey of India Offices, Calcutta, July 1896

Gov^T Archæological Survey of N.W. Provinces & Oudh.



SCREENS ENCLOSING AMBULATORY, SALIM CHISTI'S TOMB, FATEHPUR SIKRI.

Survey of India Offices, Calcutta, October 1896.

TECHNICAL ART SERIES, 1896.

PLATES IX AND X.

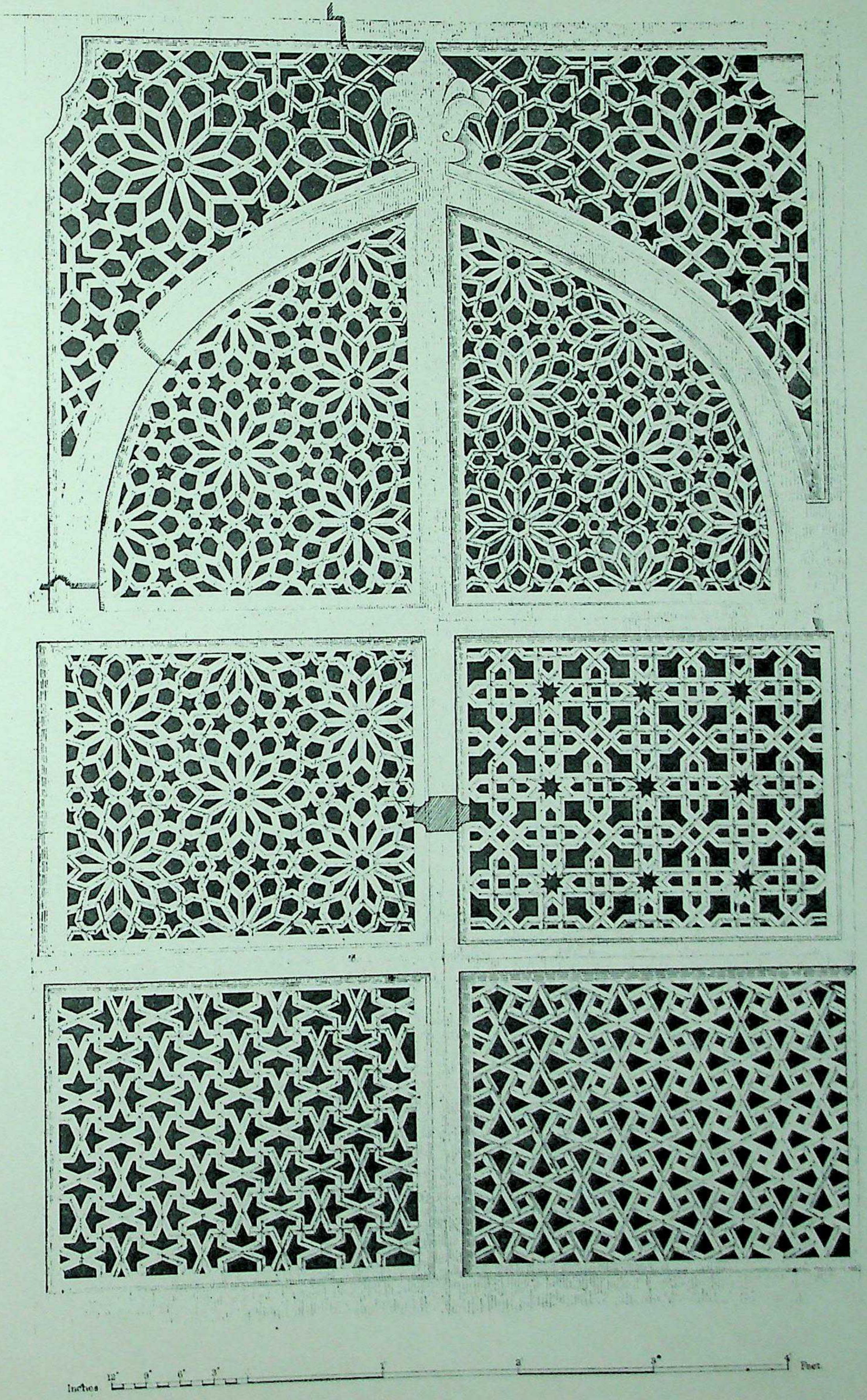
FATEHPUR SÎKRÎ: ISLÂM KHÂN'S TOMB. DETAILS OF VERANDAH SCREENS.

WITHIN a few paces of Salîm Chishti's tomb is that of his grandson, Nawab Islâm Khân, who for some time was governor of Bengal. It is built on a much larger scale than Salîm's tomb, but in red sandstone instead of white marble. Externally it measures 45 feet square, and is surrounded on all four sides by a spacious verandah 15 feet wide, the sides of which have been closed by *jali* screens in red sandstone, and converted into chantry chapels. The traceries exhibited on Plates IX and X represent two of the verandah screens. In design they resemble the screens in Salîm Chishti's tomb, and almost without exception they are composed of geometrical patterns. In many cases star-tracery, as in the examples before us, has been largely used for filling up the spandrils and panels.

The sectional lines on the diagrams show the contour of the mouldings of the mullions and transoms and the depth of the tracery which varies a little, but averages, like that of Salîm's tomb, about 1 inch in thickness.

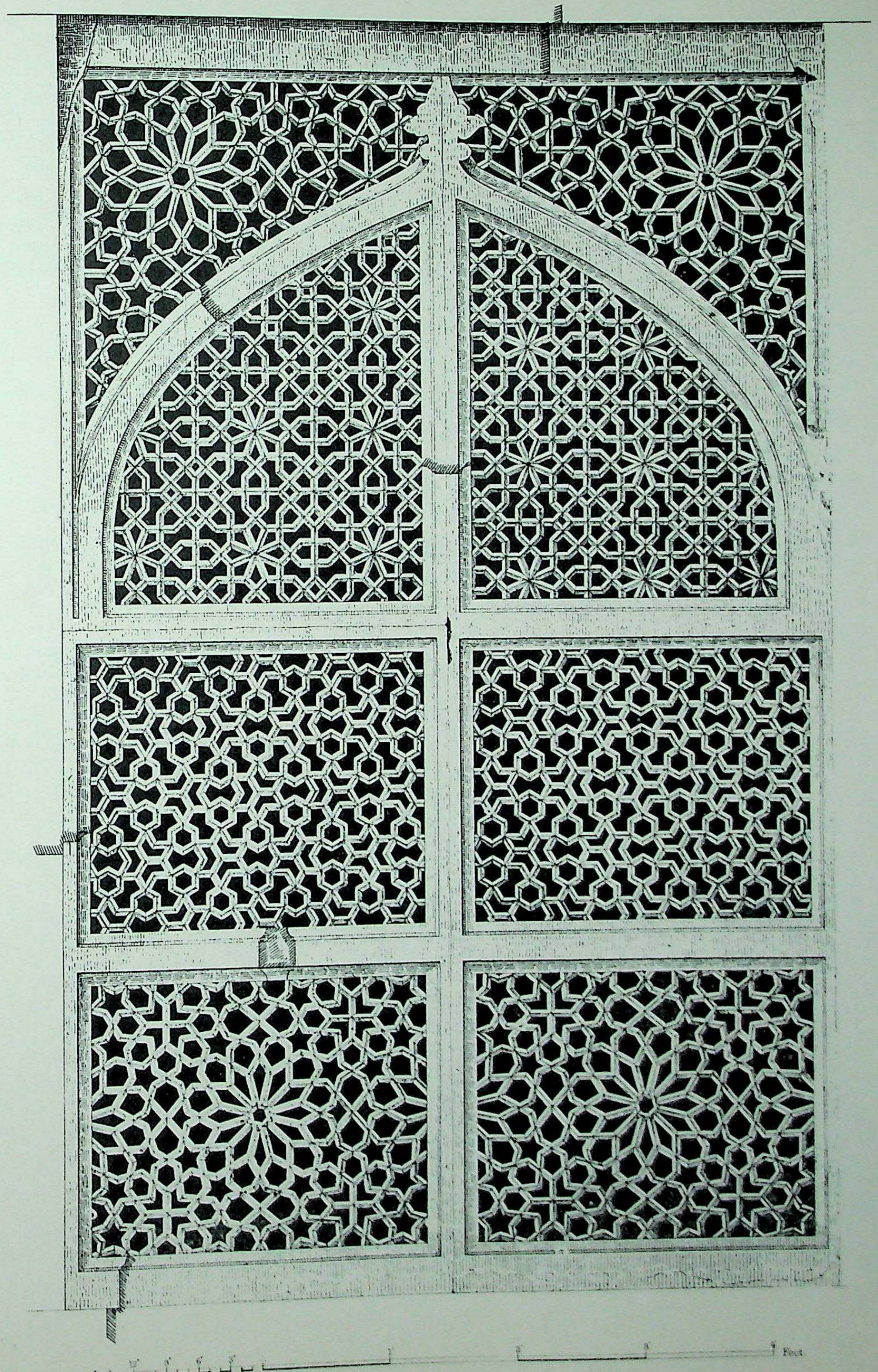
E. W. SMITH.

Gov T Archæological Survey of N.W. Provinces & Oudh.


Inches
12"
9"
6"
3"
1
2
3
4
Feet

SCREENS ROUND SIDES OF ISLAM KHANS TOMB, FATEHPUR SIKRI.

GOVᵗ ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH.


Inches 12" 9" 6" 3"
1'
2'
3'
4' Feet

SCREENS ENCLOSING THE SIDES OF ISLAM KHANS TOMB, FATEHPUR SIKRI.

TECHNICAL ART SERIES, 1896.

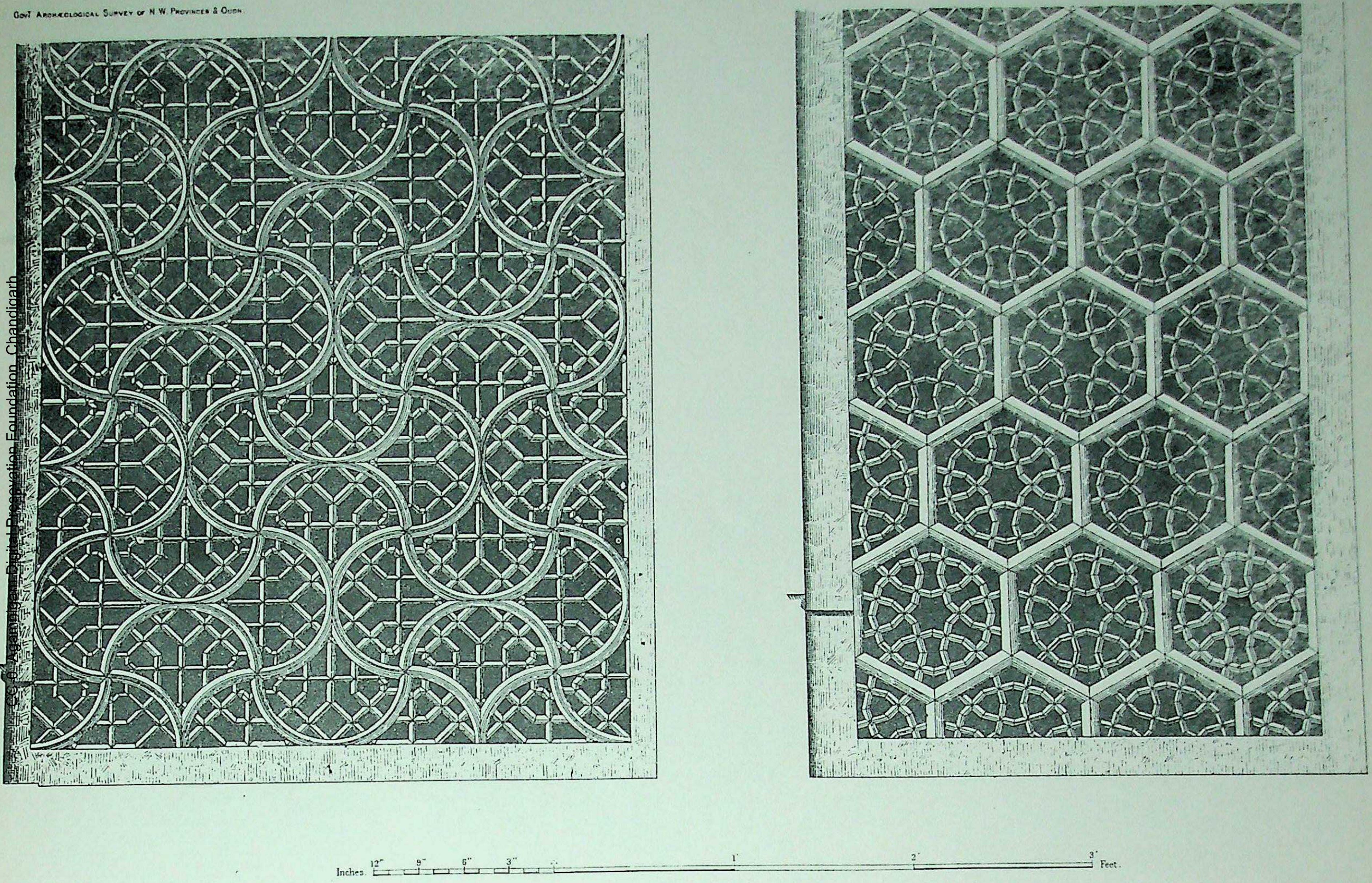
PLATE XI.

FATEHPUR SÎKRÎ: THE ZANÂNA RAUZA. DETAILS OF SCREEN-WORK.

BETWEEN Islâm Khân's and Salîm Chishti's tomb is the Zanâna Rauza, or mausoleum in which the female descendants of the Chishti family are buried. It consists of two long oblong-shaped chambers, built parallel to the walls of the Great Masjid on the south side of its quadrangle. The two chambers are separated one from the other by a partition wall, and the outer room, or that facing the courtyard or masjid quadrangle, is sub-divided into three parts by two traceried screens. Plate XI shows portions of these screens, which are 6 feet high and extend laterally across the chamber from north to south. Both are rather uncommon, more especially that shown on Fig. 1, the flamboyant-like tracery in which is seldom met with in the Fatehpur Sikrî architecture.

GOV'T ARCHÆOLOGICAL SURVEY OF N.W. PROVINCES & OUDH.

CC-0. Agamnigam Digital Preservation Foundation, Chandigarh


Inches.
12"
9"
6"
3"
1'
2'
3'
Feet.

SCREENS WITHIN THE ZANÁNA RAUZA, FATEHPUR SIKRI.

TECHNICAL ART SERIES, 1896.

PLATE XII.

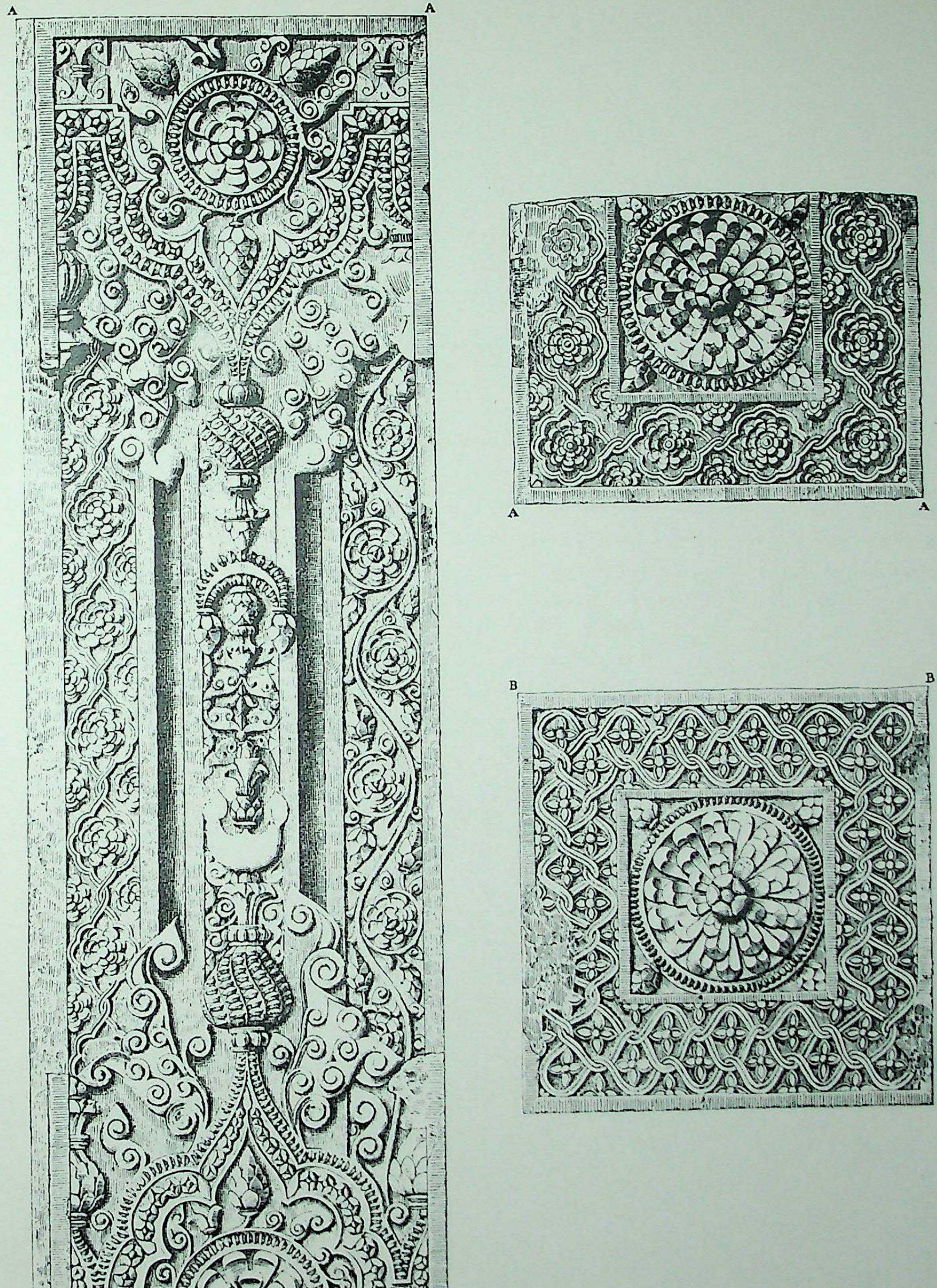
DETAILS OF DOOR JAMB OF MEDIÆVAL JAINA TEMPLE FORMERLY AT AGRAH.

THIS plate represents the upper half of a minutely-carved, though somewhat damaged, door-jamb of finely grained black basalt, the whole measuring 6 feet 7 inches in height, 9 inches in breadth across the carved surface, and 7 inches in thickness. The carving of this stone is of the very finest and richest description, and very chastely executed. One of the prevailing ornaments is the lotus in an *amlaśilâ* circle, or in lozenge-shaped spaces, the figures being placed at regular intervals on either side of wavy tendrils giving off leaves and buds. Some are arranged in vertical bands in triangular areas over and below segments of arches with erect and pendent finials, whilst others are grouped in square panels above and below. The lower half of this door-jamb contains an exact reproduction of the above ornaments.

This sculpture, which is now in the Lucknow Provincial Museum, was excavated about twenty years ago near the banks of the Jamnâ, below the Fort of Agrah, and belonged undoubtedly to a mediæval Jaina temple, which formerly stood on the present site of the Fort, as several massive and elaborately sculptured black basalt images of Tìrthamkaras, of which one is dated Samvat 1063, or A.D. 1005-6, were brought to light on the same spot.

A. FÜHRER.

GOVT ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH.


A
A
A
A
B
B
B
B
3"
6"
9"
12"
Inches

DETAILS OF DOOR-JAMB OF MEDIÆVAL JAINA TEMPLE, FORMERLY AT AGRAH.

TECHNICAL ART SERIES, 1896.

PLATE XIII.

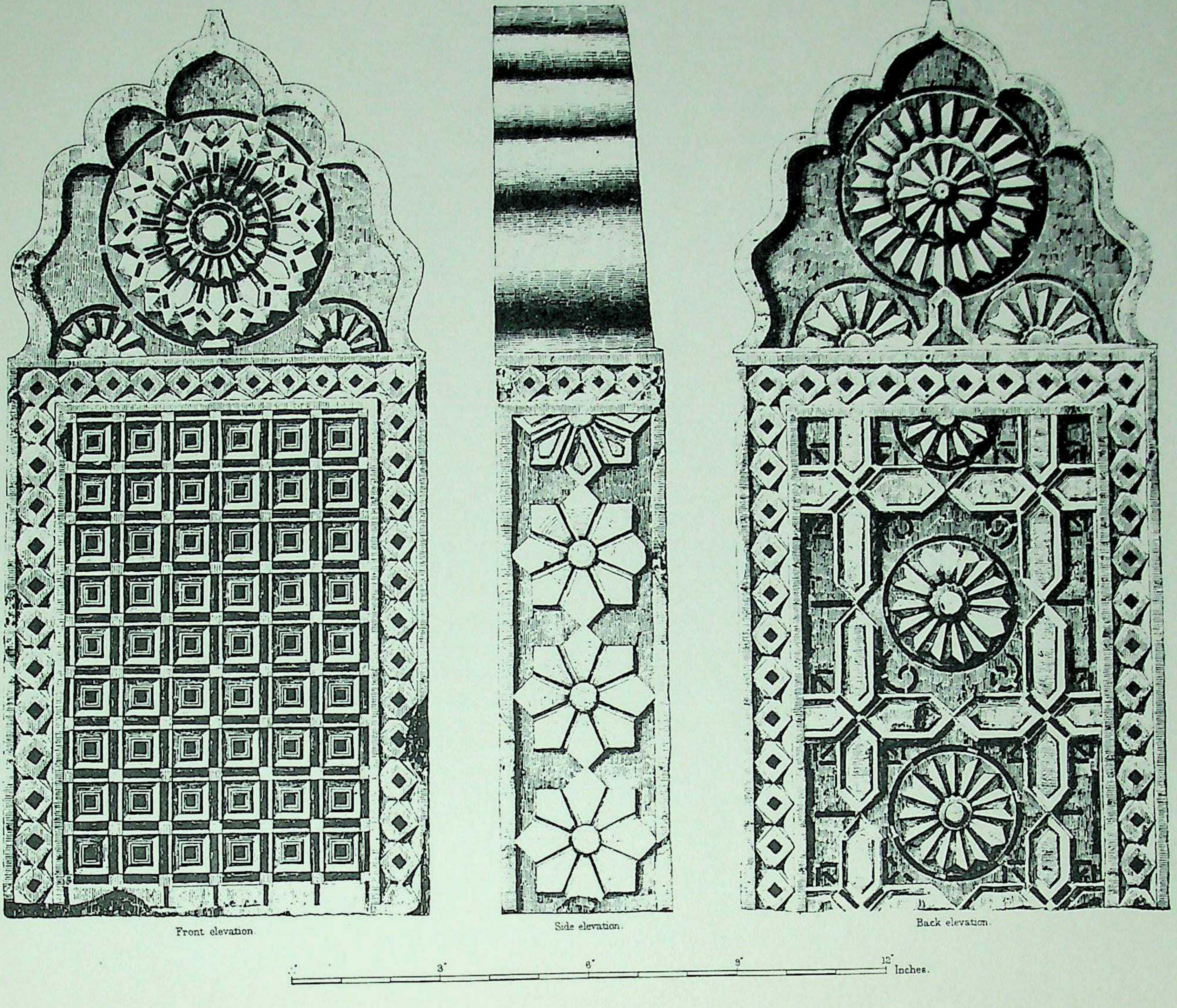
FINIAL OF MUSALMAN TOMB-STONE NEAR ROHRI IN SINDH.

THIS plate gives the details of carving on a small finial of yellowish limestone, which once crowned the headstone of an old ruined Musalmân tomb on Sutteh Island in the Indus, opposite Rohri, in the Shikârpur District of Sindh. The arrangement of the ornamental details is very pleasing in effect, and seems to have been borrowed from a carved wooden door.

The original stone is now in the Provincial Museum at Lucknow, having been presented by Mr. Archibald Constable in February 1889.

A. FÜHRER.

Govt Archæological Survey of N.W. Provinces & Oudh.



Front elevation.

Side elevation.

Back elevation.

FINIAL OF MUSALMAN TOMB-STONE NEAR ROHRI IN SINDH.

Survey of India Offices, Calcutta, November 1896.

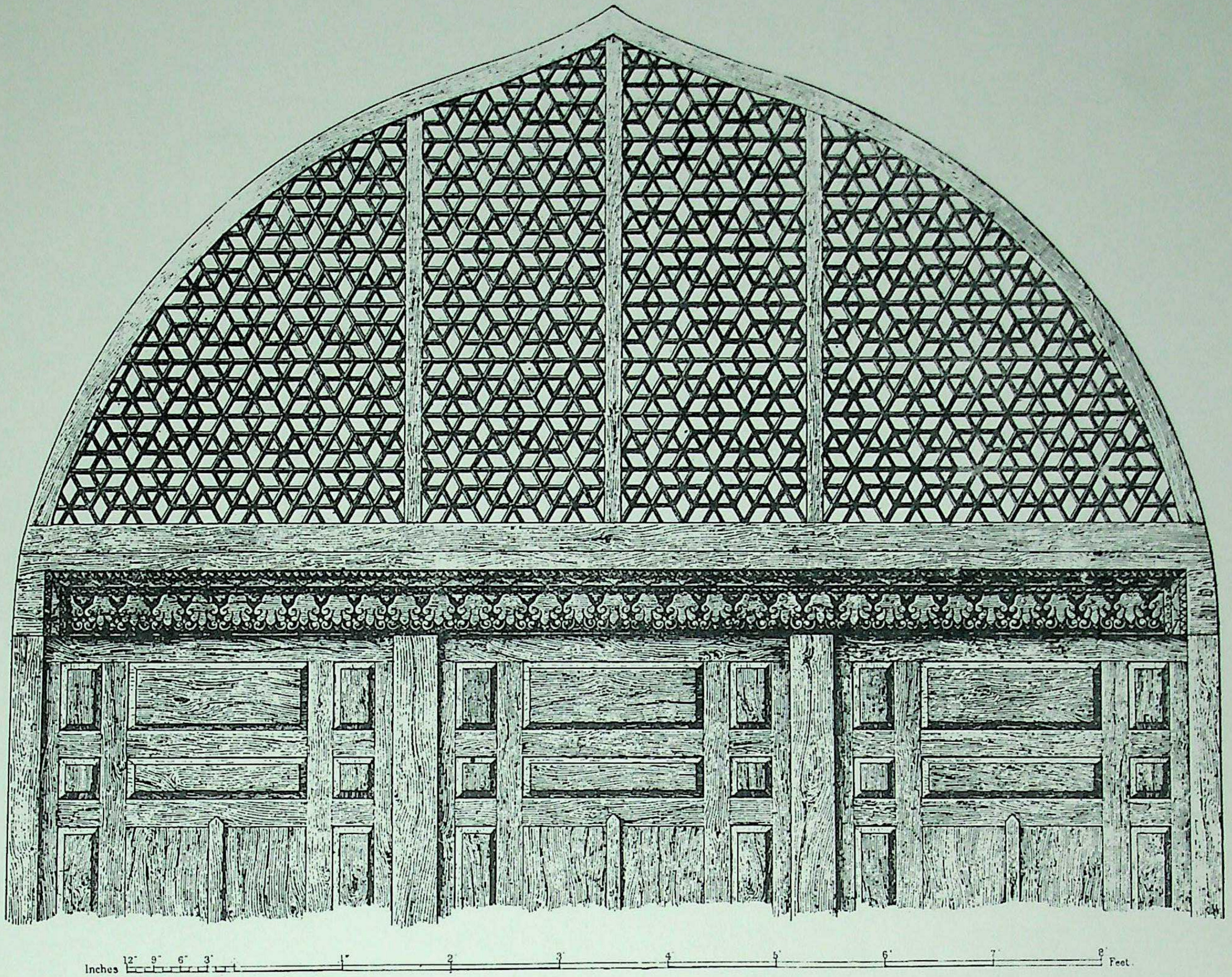
TECHNICAL ART SERIES, 1896.

PLATES XIV AND XV.

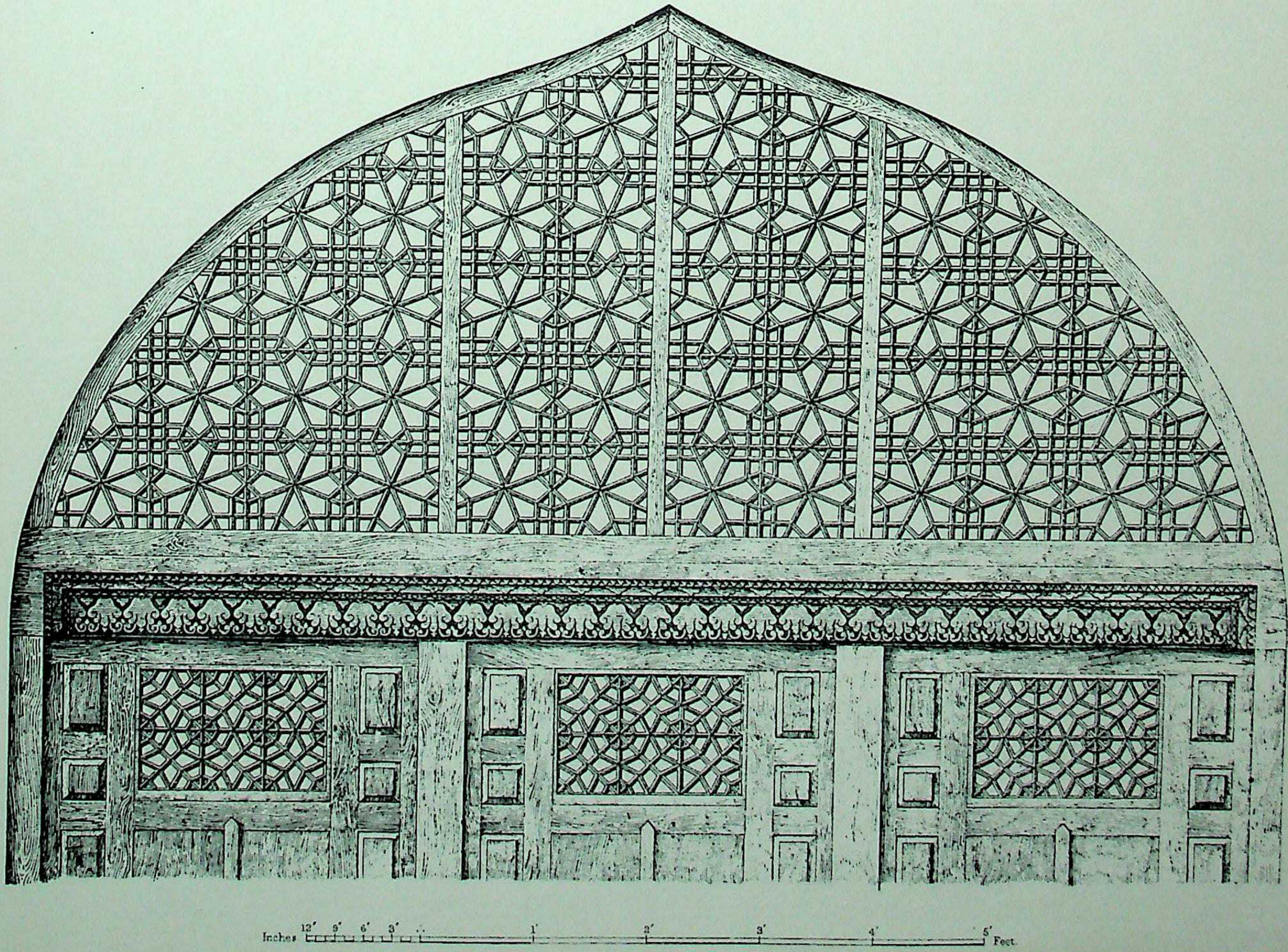
WINDOWS FROM THE 'ASÂR MAHÂL, BIJÂPUR.

PLATES XIV and XV represent two windows in the old 'Asâr Mahâl at Bijâpur. This building, though laying no claim to any architectural note, being one of the plainest in general design, has within it several things worthy of attention. The painted walls of one chamber, depicting various scenes, now much damaged; the beautifully inlaid wood and ivory doors, at present mere wrecks; the gilded ceiling; the beautiful old Persian carpets; and the tracery windows in wood are all worth examination. Very little of this last kind of work is found in the old buildings of the Presidency, though much carved woodwork has been used. The Muhammadan, debarred by his religion from the use of natural forms in his designs, fell back upon geometric outlines and these he worked into endless patterns, pleasing and restful to the eye. The interstices of these windows were originally filled with yellow and blue stained glass, some of which still remains. The woodwork is all joined up in small pieces and is not perforated.

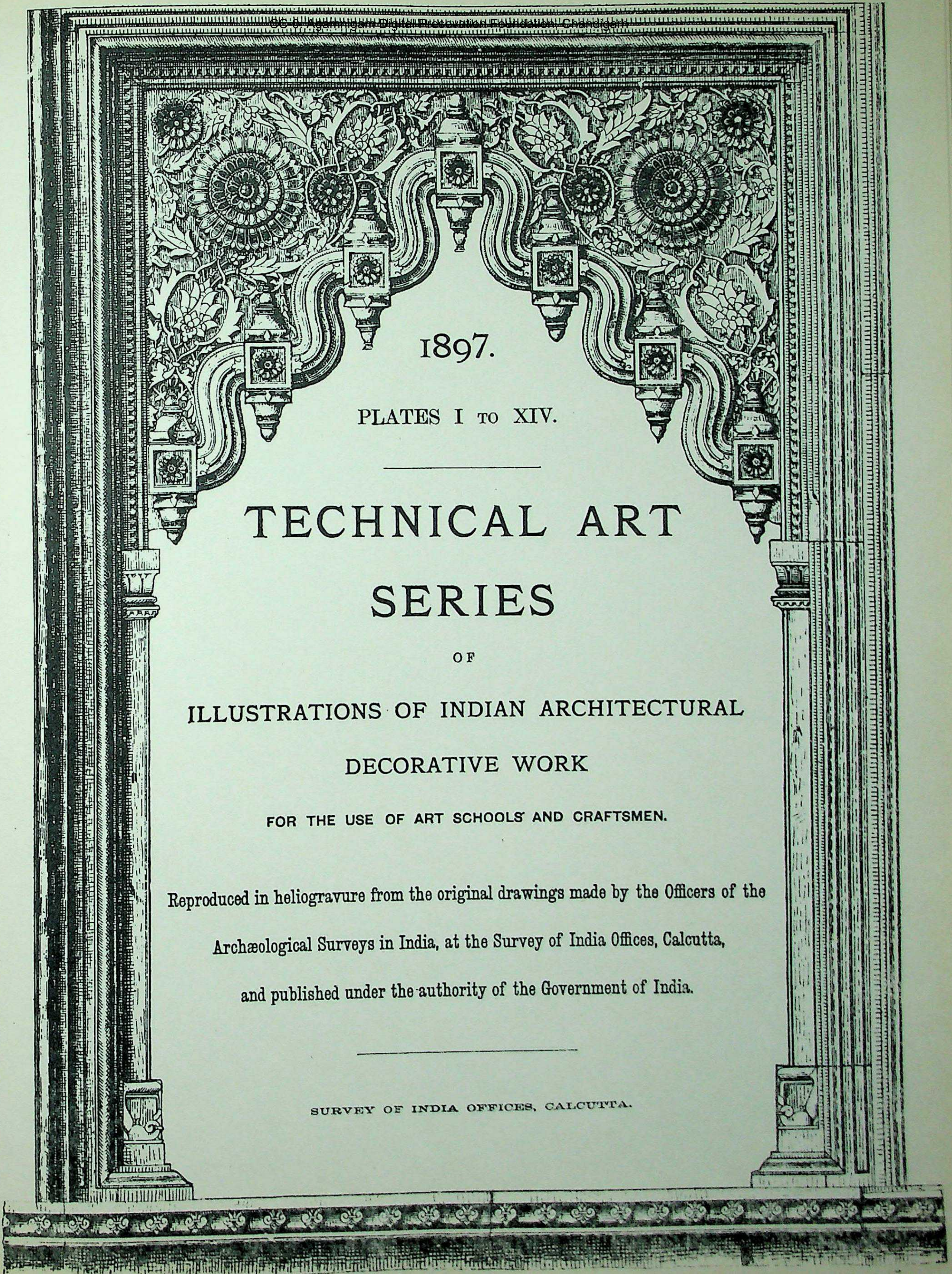
H. COUSENS.


Inches 12" 9" 6" 3"
1'
2'
3'
4'
5'
6'
7'
8'
Feet.

WINDOW IN WOODWORK AND STAINED GLASS, FROM THE ASAR MAHAL. BIJAPUR.


Inches 12' 9' 6' 3'
1'
2'
3'
4'
5' Feet.

WINDOW IN WOODWORK AND STAINED GLASS. FROM THE ASAR MAHAL, BIJAPUR



1897.

PLATES I TO XIV.

TECHNICAL ART
SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the
Archæological Surveys in India, at the Survey of India Offices, Calcutta,
and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

PLATE I.—Ancient Female Statue from Mathura.
" II to IV.—Gingee Fort, South Arcot.
" V.—Carved Dado Panel, Turkish Sultana's House, Fathpur Sîkrî.
" VI to VIII.—Detail of Pedestal, Base, and Shaft of the column in the centre of the Chamber, Dîwân-î-Khâs, Fathpur Sîkrî.
" IX.—Details of String Mouldings, Jodh Bâî's Palace, Fathpur Sîkrî.
" X.—Detail of Base of Shaft, Astrologer's Seat, Fathpur Sîkrî.
" XI.—Detail of one of the upper panels on the North facade, Chaurâsi Gumbuz, Kâlpî, North Western Provinces.
" XII.—Door from the Fort at Hyderabad, Sind.
" XIII.—Perforated Terra-Cotta window from a Tomb at Sehwan, Sind.
" XIV.—Old Persian Damascened Shield.

TECHNICAL ART SERIES, 1897.

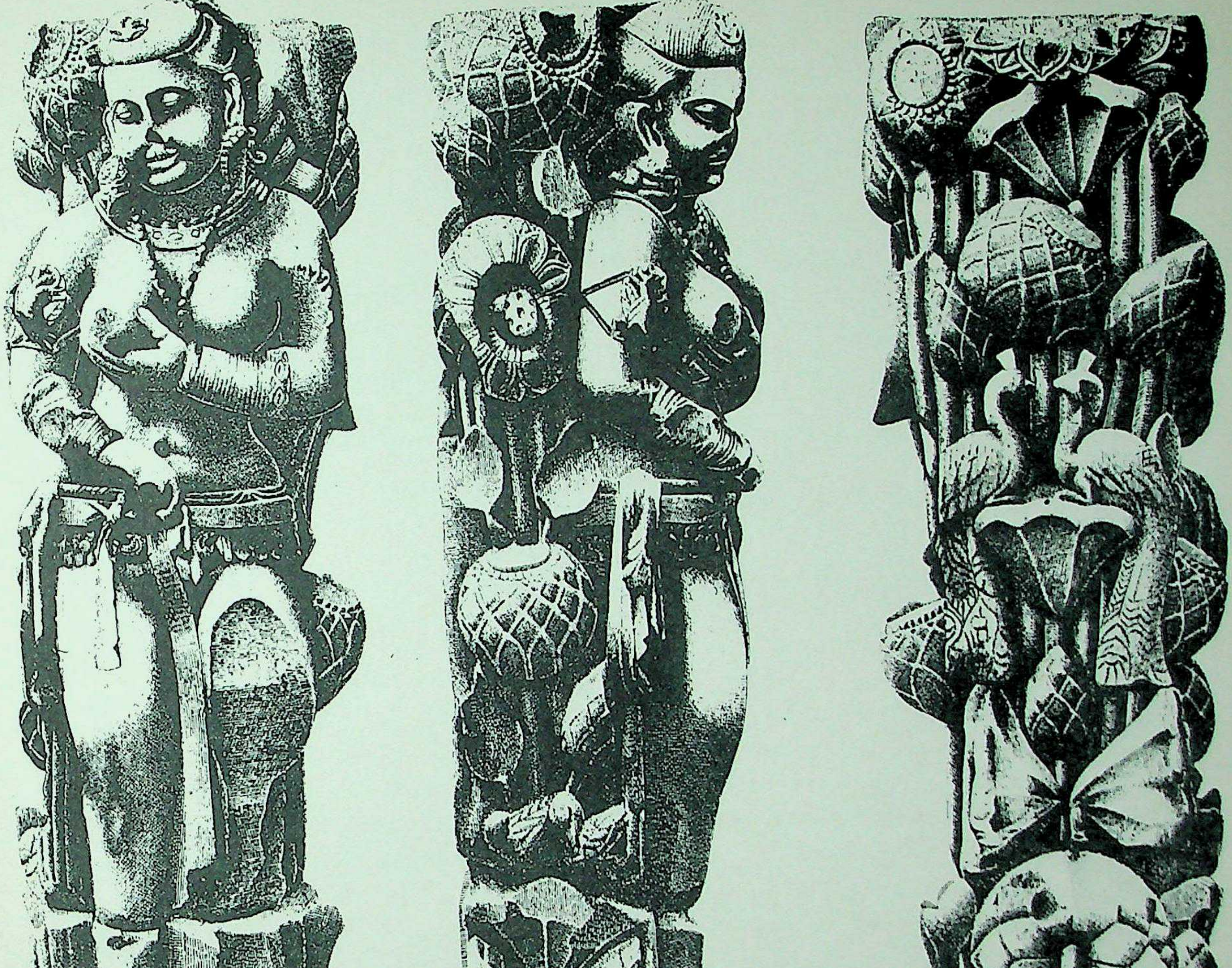
PLATE I.

ANCIENT FEMALE STATUE FROM MATHURA.

THIS remarkable piece of sculpture, slightly damaged, represents a female of high rank of rather more than half size. The figure is naked, save ear-rings, bracelets, armlets, anklets, a broad silver necklace and a second long one of beads or pearls, a zone of silver ornaments, and an additional flat knotted belt round the waist, the same as is seen in the Sanchi sculptures and Ajanta Paintings. The attitude and the position of the hands are similar to those of the famous statue of Venus of the Capitol. But in this statue the left hand is brought across the right breast, whilst the right hand holds up a small bunch of flowers. The head is slightly inclined towards the right shoulder, and the hair is dressed in a new and peculiar manner, with long tresses on each side of the face which fall from a large circular ornament on the top of the head. The back of the figure is supported by a thick cluster of lotus-stalks, covered with buds and flowers and two peacocks, which are very gracefully arranged and boldly executed. The plump face with its broad smile is the least satisfactory part of this work. Altogether the statue is one of the best specimens of unaided early Indian Art to be met with. The pedestal of the statue shows that the figure was originally placed on the top of a small column, and most probably it once adorned one of the gateways to the great Buddhist stûpa near the monastery of the Indo-Scythian King Huvishka at Mathurâ, which dates from the second half of the first century A. D. The statue was unearthed, in 1860, from the ruins of a mound close to the Jail at Mathurâ, which, according to the inscriptions discovered on the spot, would appear to have been the site of the Hushka or Huvishka Vihâra. The original statue is now in the Provincial Museum at Lucknow.

A. FÜHRER.

GovT ARCHÆOLOGICAL SURVEY OF N.W. PROVINCES & OUDH No. 813


Front view.
Side view.
Back view.

ANCIENT FEMALR STATUE FROM MATHURA.

Survey of India Offices, Calcutta, November 1897

TECHNICAL ART SERIES, 1897.

PLATES II TO IV.

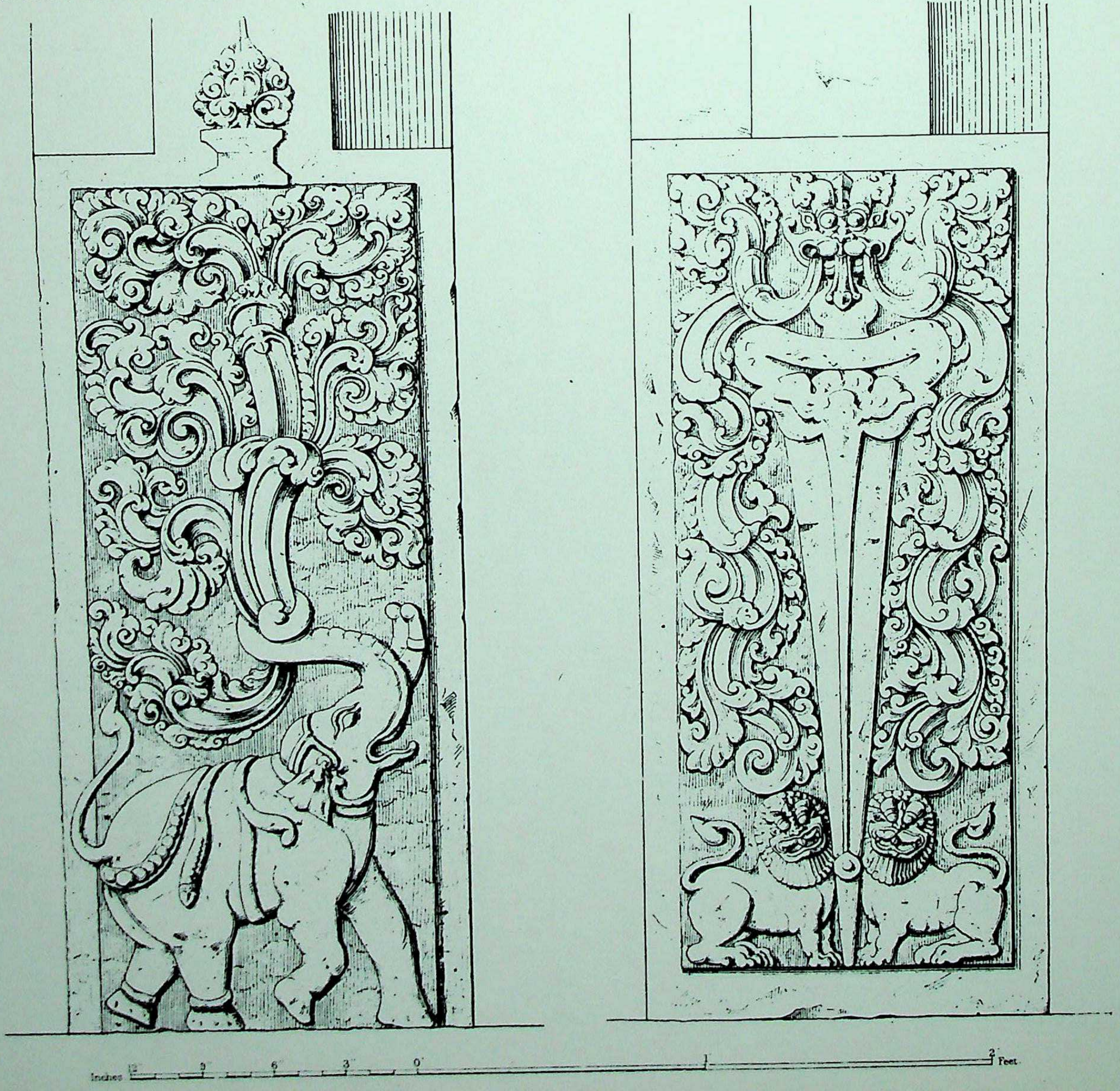
GINGEE FORT, SOUTH ARCOT.

THE Gingee fortress is one of the most extensive, and historically important in Southern India. It is intimately associated with the history of the early English settlement at Madras.

As with other structures of the class, the residential buildings are in a distinctive civil style of architecture. The fort gateways and religious structures, are built in the style of temples of the period. To the latter belong the carvings illustrated in the accompanying plates. The carving is of a florid character, largely used in South Indian temples. It is sometimes simply floral; but is of most interest when it is arranged in some distinctive design, with the incorporation of various animals or weapons. In these examples, a dagger, the lion and elephant are employed. Plate II is from the lower part of a pier in the fort gateway. The others are panels on piers in the Kalyana Mandapa of the Vencata Ramasami temple in the fort.

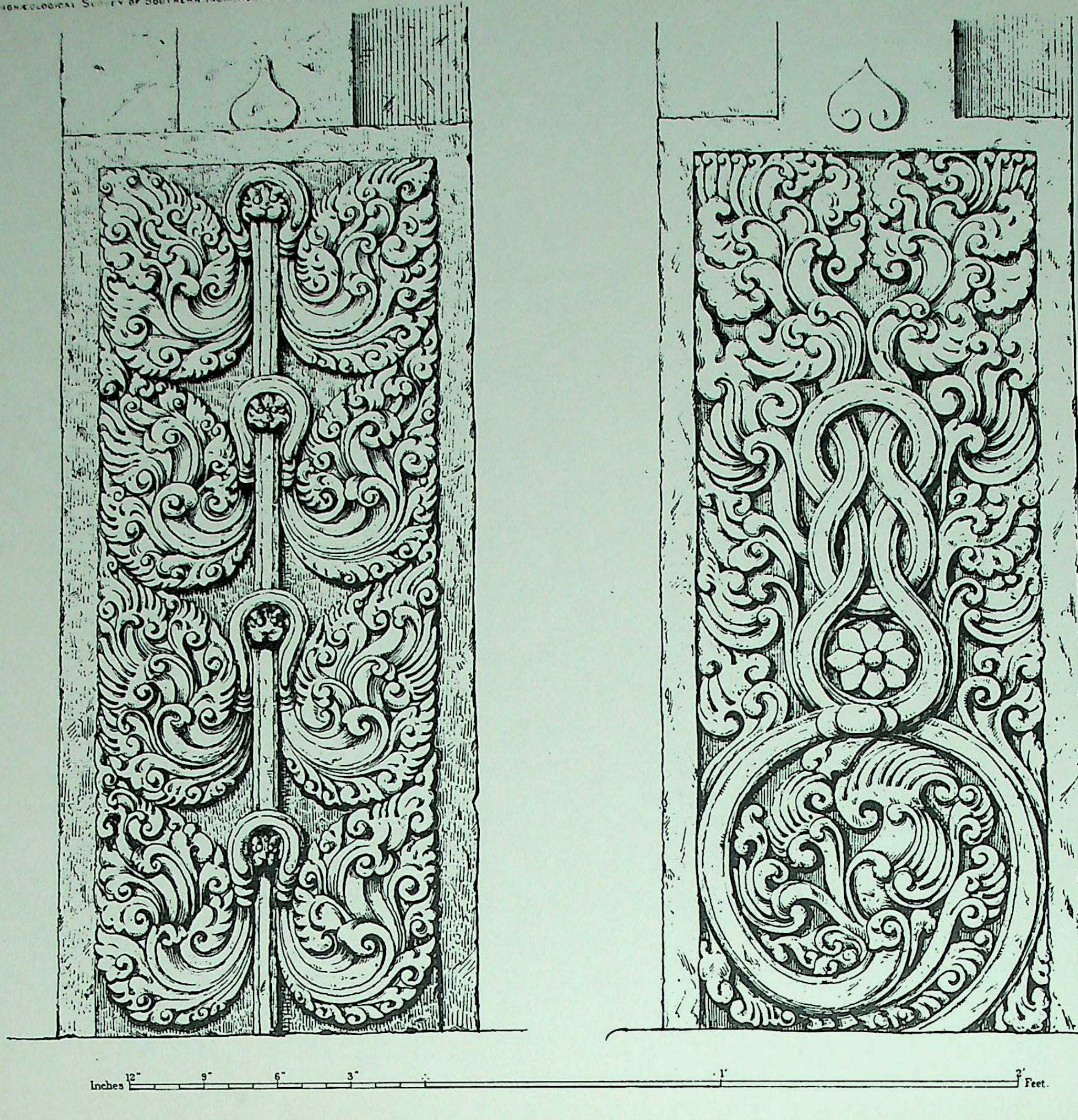
TECHNICAL ART SERIES - 1897

GOVT ARCHÆOLOGICAL SURVEY OF SOUTHERN INDIA. NOS 1152 & 1157


Inches
12
9
6
3
0
1
2
Feet.

PIER ORNAMENTS. GINGEE FORT. SOUTH ARCOT

Survey of India Offices, Calcutta, October 1897.

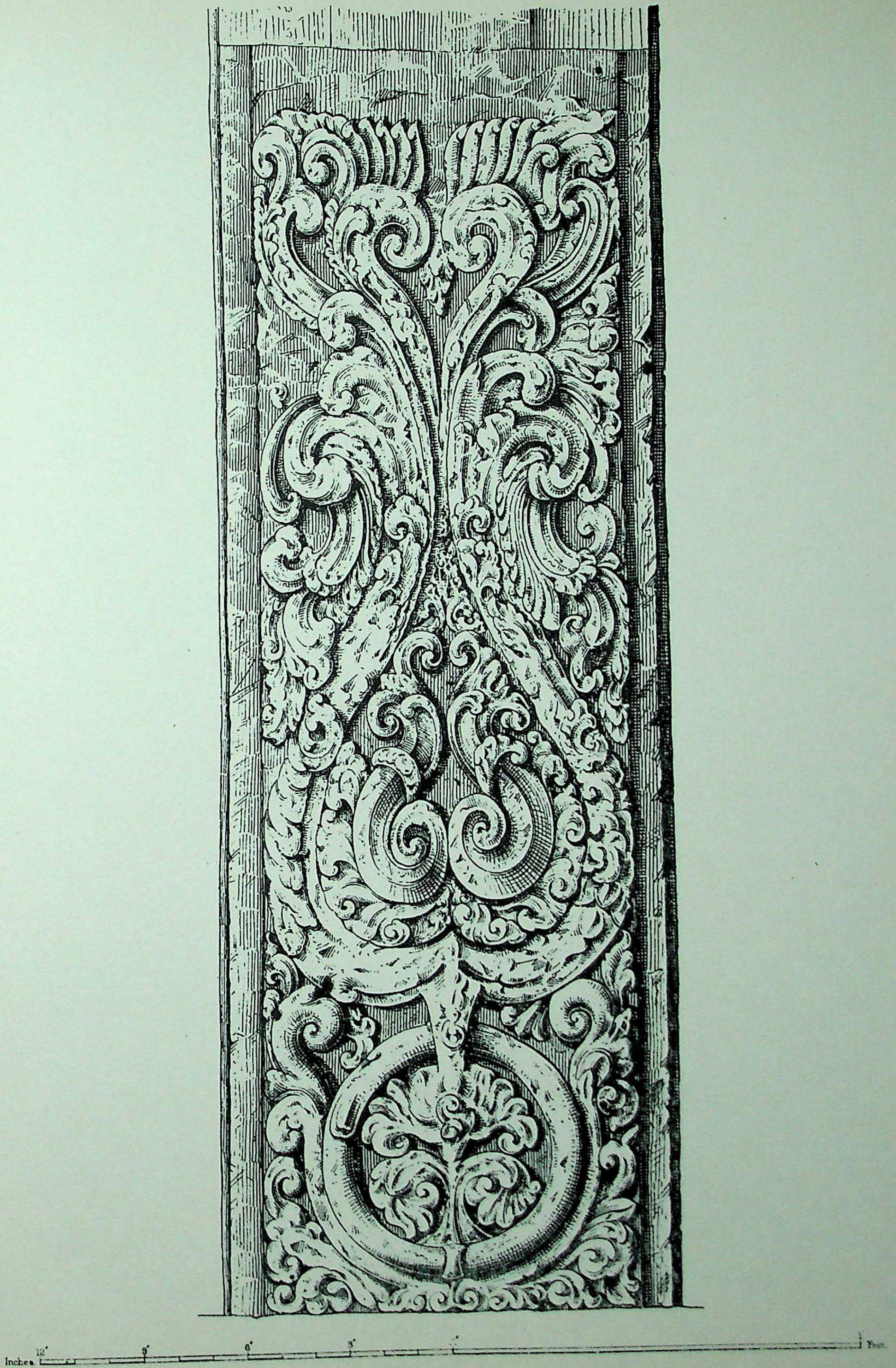

Inches 12" 9" 6" 3" 1' 2' Feet.

PIER ORNAMENTS, GINGEE FORT, SOUTH ARCOT.

Photo-etching.

Survey of India Offices, Calcutta, October 1897.

Govt. Archæological Survey of Southern India, No. 1163



PIER ORNAMENT. GINGEE FORT. SOUTH ARCOT.

Survey of India Offices, Calcutta, November 1897.

TECHNICAL ART SERIES, 1897.

PLATE V.

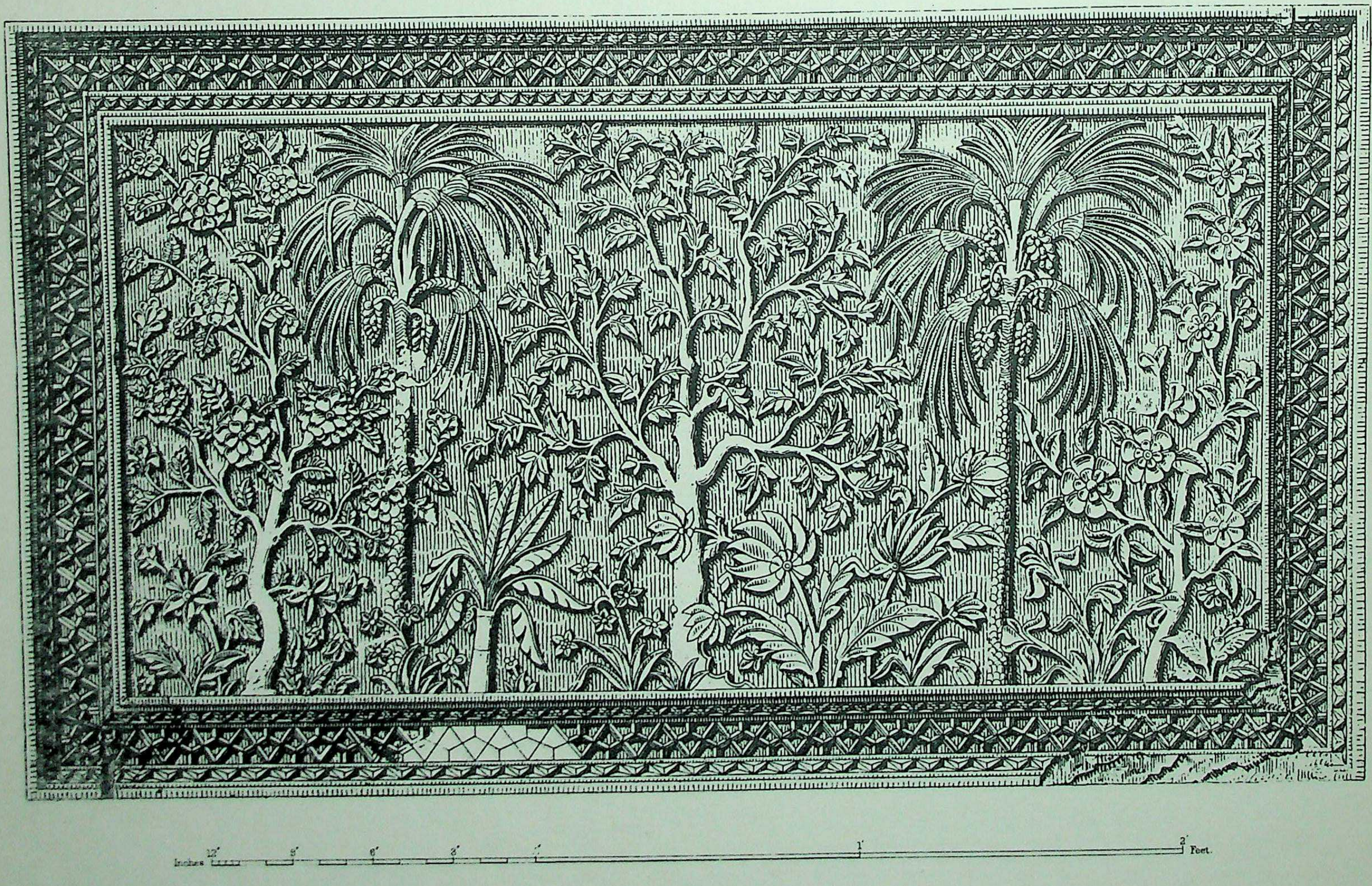
FATHPUR SÎKRÎ—TURKISH SULTANA'S HOUSE.

CARVED DADO PANEL.

PLATE V continues on the illustrations which have previously appeared of Akbar's Fathpur Sîkrî palaces in Parts 1891 to 1896 of the Technical Art Series. The dado panel shown on Plate V is one of a series of eight, carved on the interior walls of the residence set apart for Akbar's so called Turkish queen. Like the dado panel from this house which appeared on Plate XI, (Part for year 1891) it is enclosed in a richly carved frame of stone which is surmounted by a stone lattice extending up to the cornice crowning the top of the room. The scene depicted is a jungle or forest. Amongst other trees, on the sides of the panel, date-palms in full fruit are conspicuous. Beneath the palm on the left hand side of the panel the *kelâ* (banana) is seen. The border round the panel, as the drawing shows was never finished, owing no doubt, to the superstitious idea the Eastern artizan has about entirely completing any piece work he is engaged upon. The whole of the carving is in relief. The pattern could be well utilised by silver-smiths and other artificers in a number of ways.

EDMD. W. SMITH.

Govt Archæological Survey of N. W. Provinces & Oudh No 217.


Inches
12'
9'
6'
3'
0
1'
2'
Feet.

CARVED DADO PANEL. TURKISH SULTANAS HOUSE. FATEHPÛR SÎKRI.

Survey of India Offices, Calcutta, October 1897.

TECHNICAL ART SERIES, 1897.

PLATES VI TO VIII.

FATHPUR SÎKRÎ—DÎWÂN-Î-KHÂS.

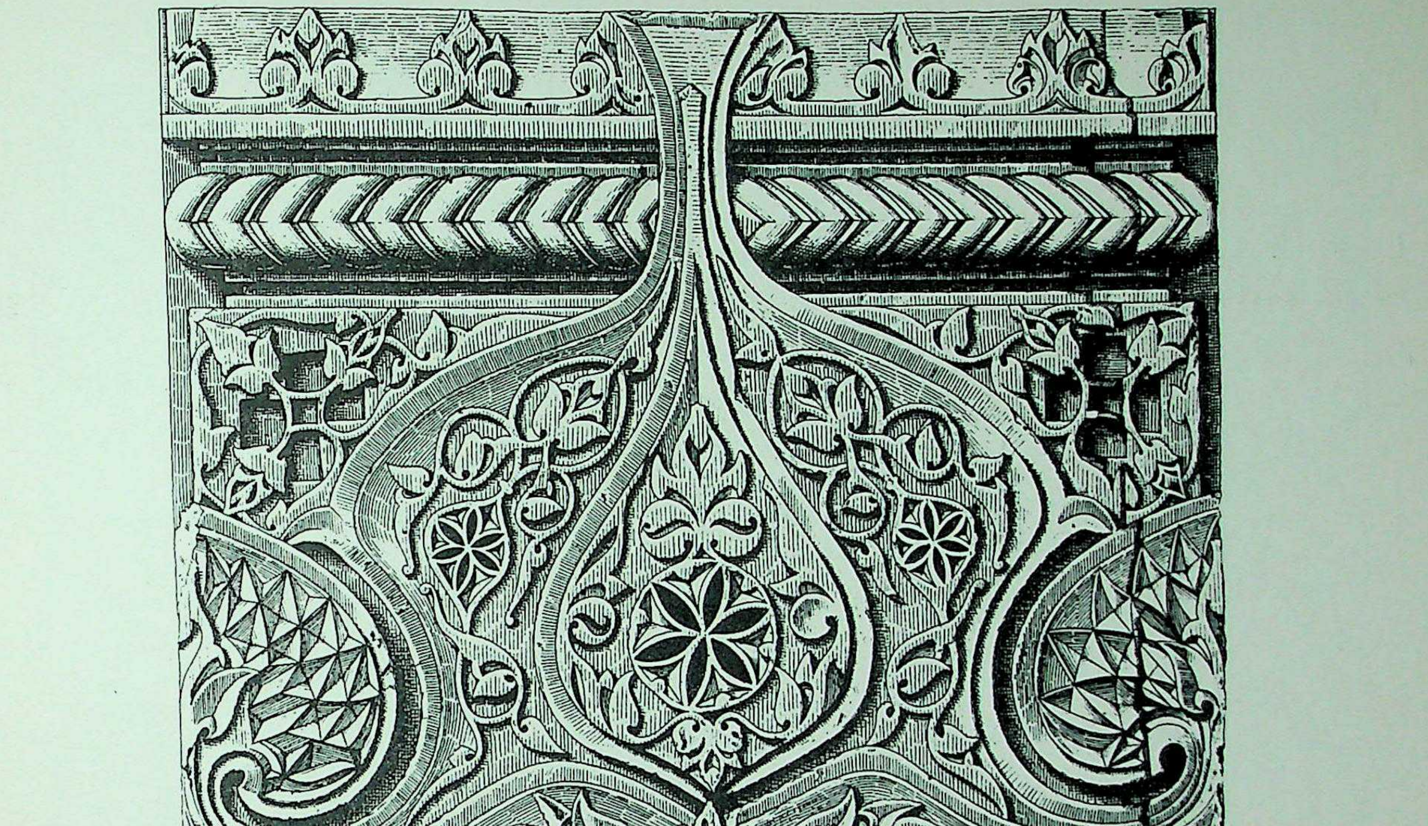
DETAIL OF PEDESTAL, BASE, AND SHAFT OF THE COLUMN IN THE CENTRE OF THE CHAMBER.

THE Dîwân-î-Khâs, or private audience chamber, is built entirely of red sand stone and viewed from the outside looks like a double storied building, whereas in reality it consists of one room only, open from floor to roof. In the centre of the chamber is a column reaching as high as the sills of the upper windows. Radiating from an enormous capital crowning the top of the column are four causeways terminating in the four angles of the room. The column is of Hindû design, but the carving upon the shaft and pedestal is of Saracenic character. The pedestal and base (Plates VI and VII) are square, but the shaft itself is octagon in shape below and sixteen sided above, and is crowned by a deep circular necking, from which the flower-like capital surmounting the column springs.

The sixteen sided portion of the shaft, Plate VIII, is chiselled with a chevron pattern finishing off on a band of small arched panels surrounded by a very effective star moulding, a characterstic feature of the Fathpur Sikrî architecture. The carving is raised somewhat above the main surface of the stone as may be seen from the section lines shown on the illustration which gives the projection of the various parts. In the carved angle-ears upon the base of the shaft (Plate VII) a couple of parrots resting upon a leaf have been sculptured.

EDMD. W. SMITH.

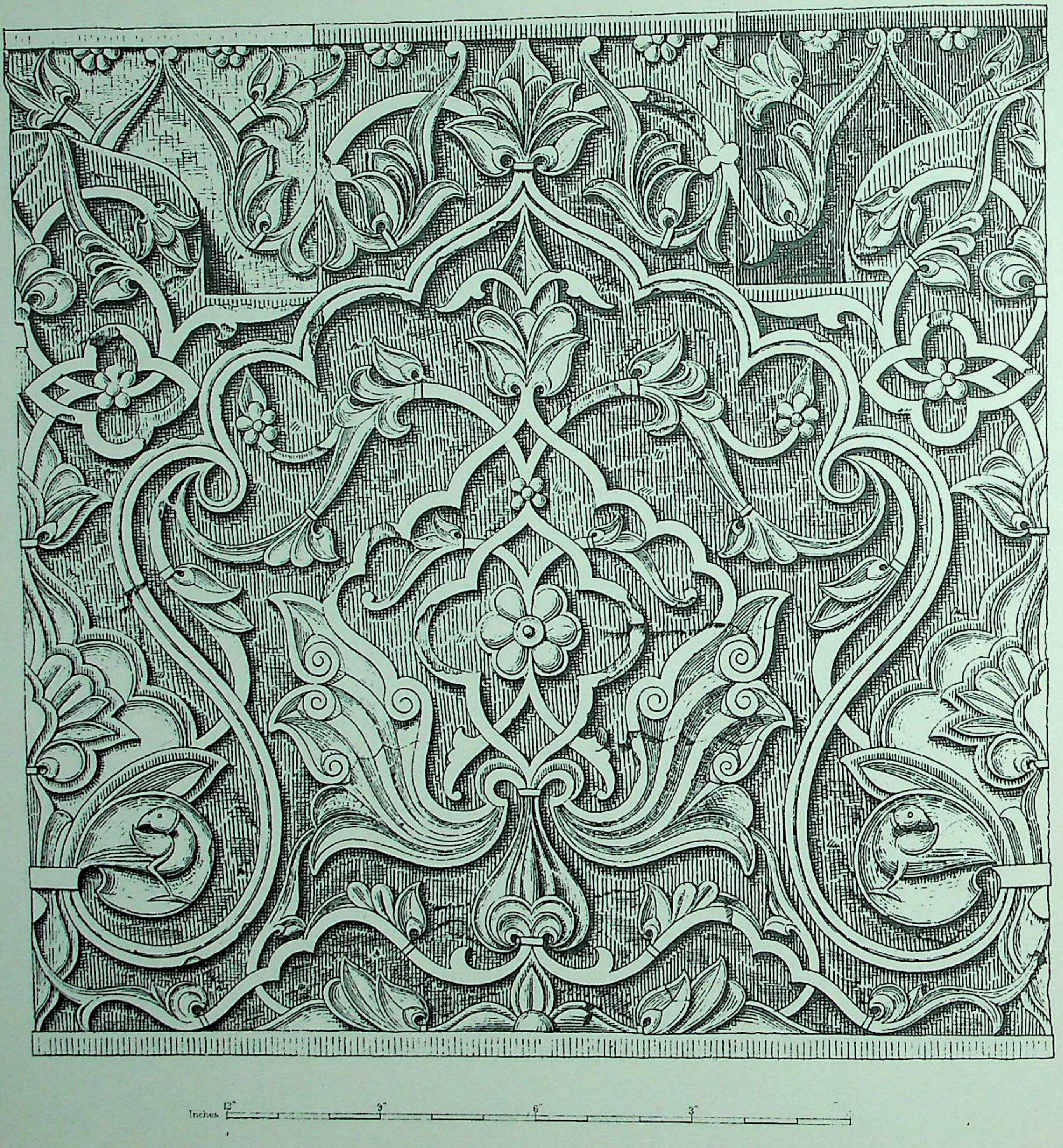
GOVT. ARCHÆOLOGICAL SURVEY OF N.W. PROVINCES & OUDH Nº 267



DETAIL OF PLINTH OF SHAFT IN CENTRE OF CHAMBER, DÎWÂN Î KHÂS, FATEHPÛR SÎKRÎ

TECHNICAL ART SERIES-1897.

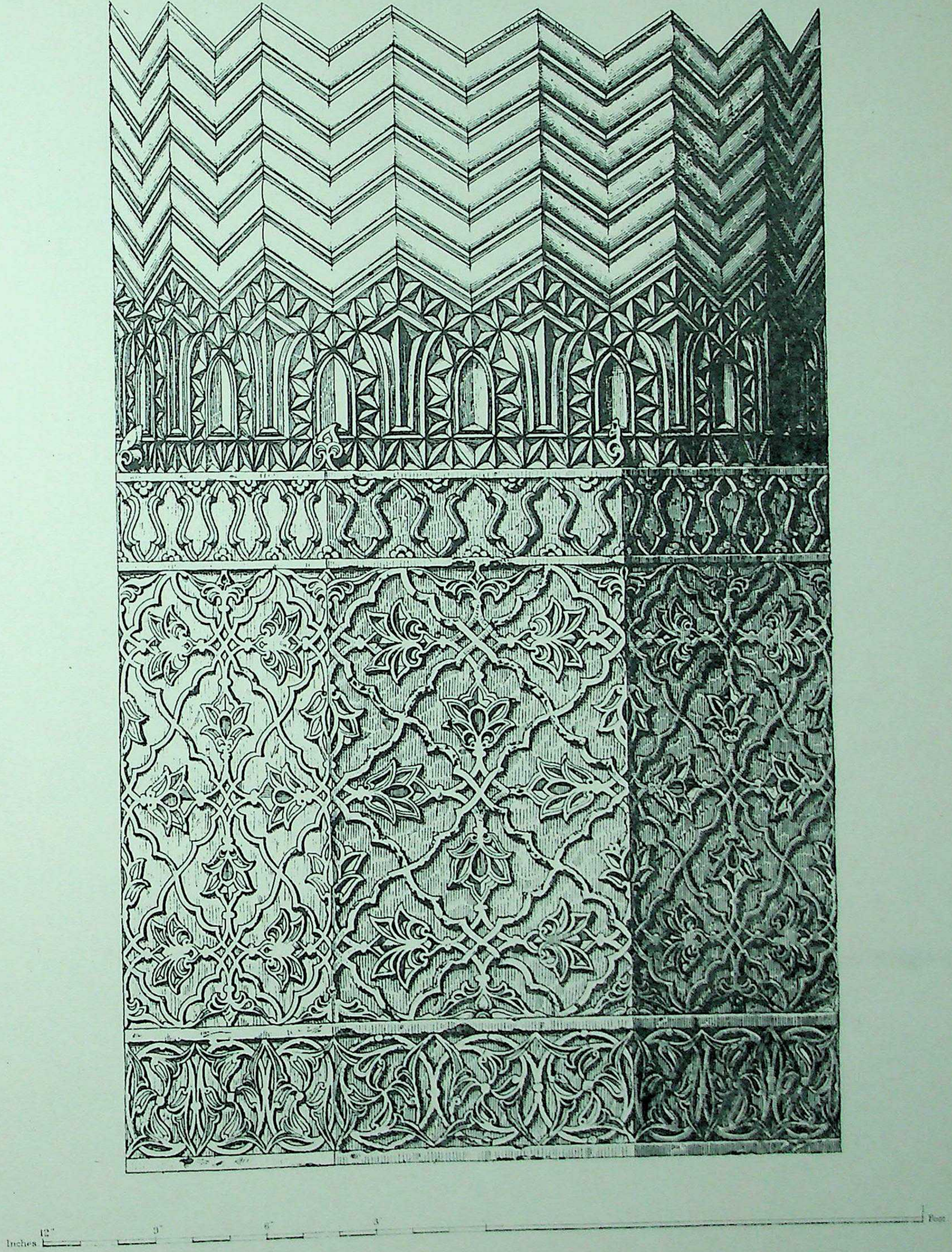
GOVT ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH. No 268



DETAIL OF BASE OF SHAFT IN CENTRE OF CHAMBER, DÍWÁN-Í-KHÁS, FATEHPUR SIKRI.

Survey of India Offices, Calcutta, May 1897.

Govt Archæological Survey of N. W. Provinces & Oudh, No 270.



DETAIL OF THE LOWER PORTION OF SHAFT IN THE CENTRE OF CHAMBER, DIWAN-I-KHAS, FATEHPUR SIKRI.

Survey of India Offices Calcutta May 1897

TECHNICAL ART SERIES, 1897.

PLATE IX.

JODH BÂÎ'S PALACE–FATHPUR SÎKRÎ.

DETAILS OF STRING MOULDINGS.

THE string mouldings illustrated on Plate IX run below the wall recesses or niches in the corridors upon the ground floor of Jodh Bâî's palace. The projection of the mouldings and the depth of the carving can be ascertained from the sections shown on the right of the plate. In each case the strings are divided into three main parts. The upper, a perfectly plain member, projects in front and covers the middle and lower; the middle projects beyond the lower and is sunk out along the front and is carved with a floral scroll in relief; whilst the lower member, a debased form of *cyma* is ornamented with the leaf and dart. In the string shown at Fig. 1, two leaves are carved upon the moulding, one upon the other, the upper being the smaller;—but in the case of those shown at Figs. 2 and 3 there are as many as four leaves placed one above the other, each being smaller than that upon which it rests. The darts between the leaves turn outwards at the top and die into the concave sides of a fringe of facets hanging from the bottom of the middle member.

EDMD. W. SMITH.

Gov^T. Archæological Survey of N. W. Provinces & Oudh, Nº 340

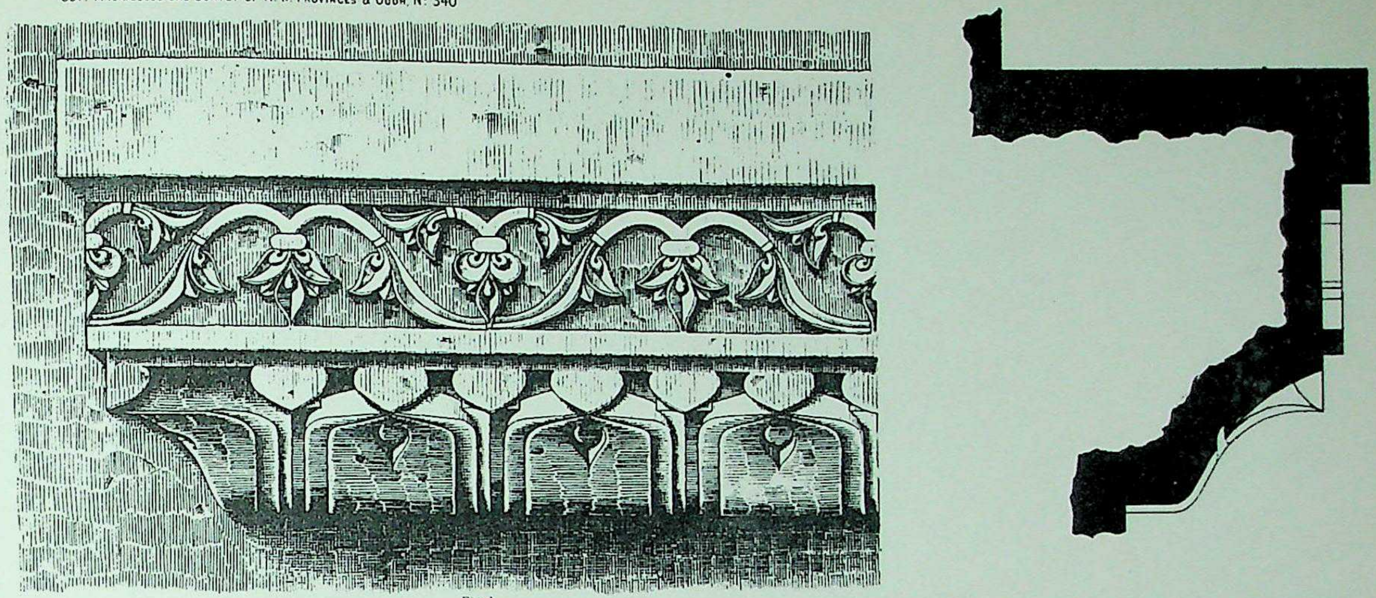


Fig 1

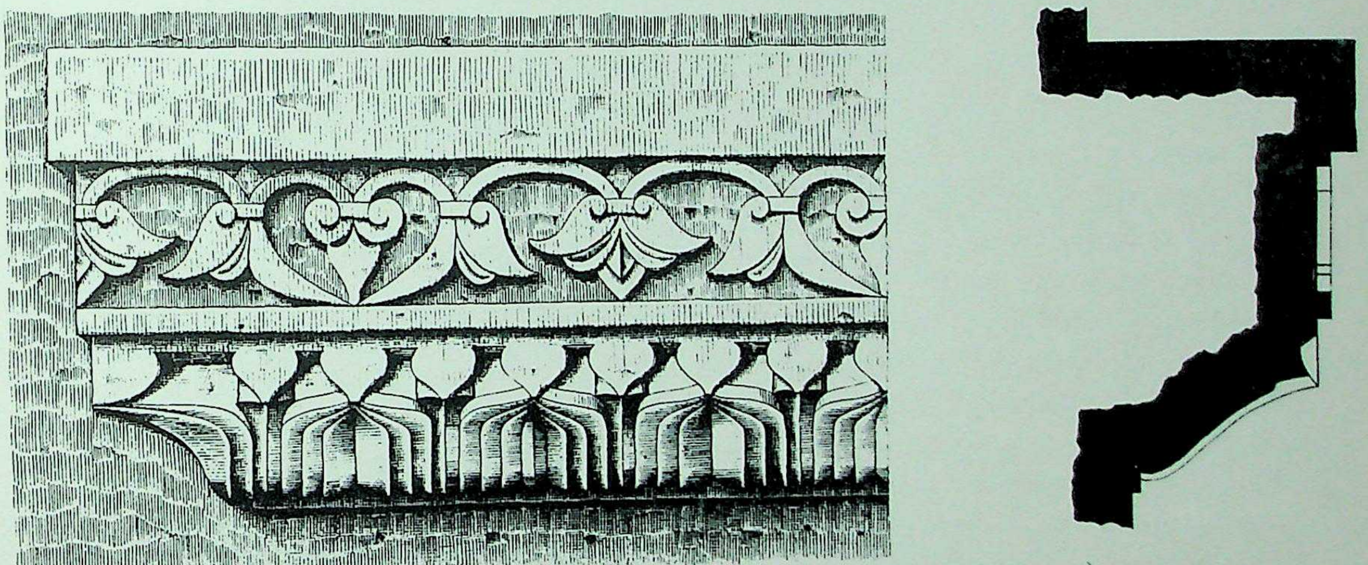


Fig 2

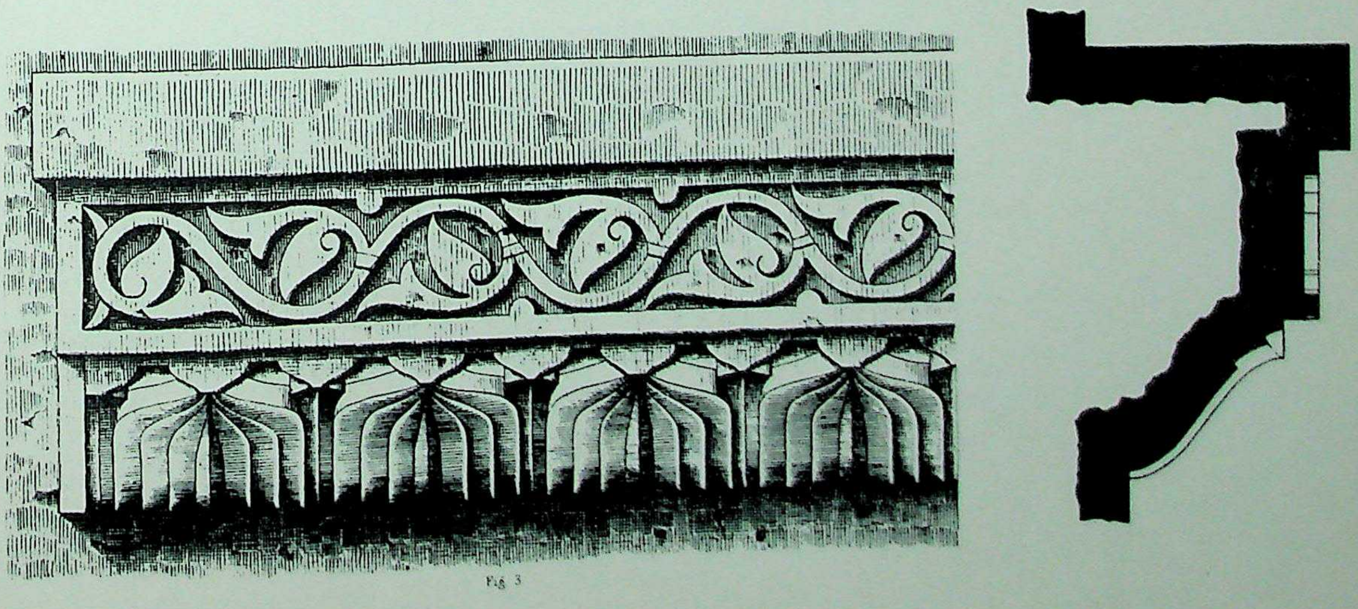
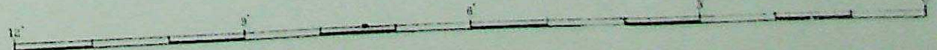


Fig 3



DETAILS OF STRING-MOULDINGS, JODH : AIS PALACE, FATEHPUR SIKRI

Survey of India Offices, Calcutta, May 1897.

Photo-etching

TECHNICAL ART SERIES, 1897.

PLATE X.

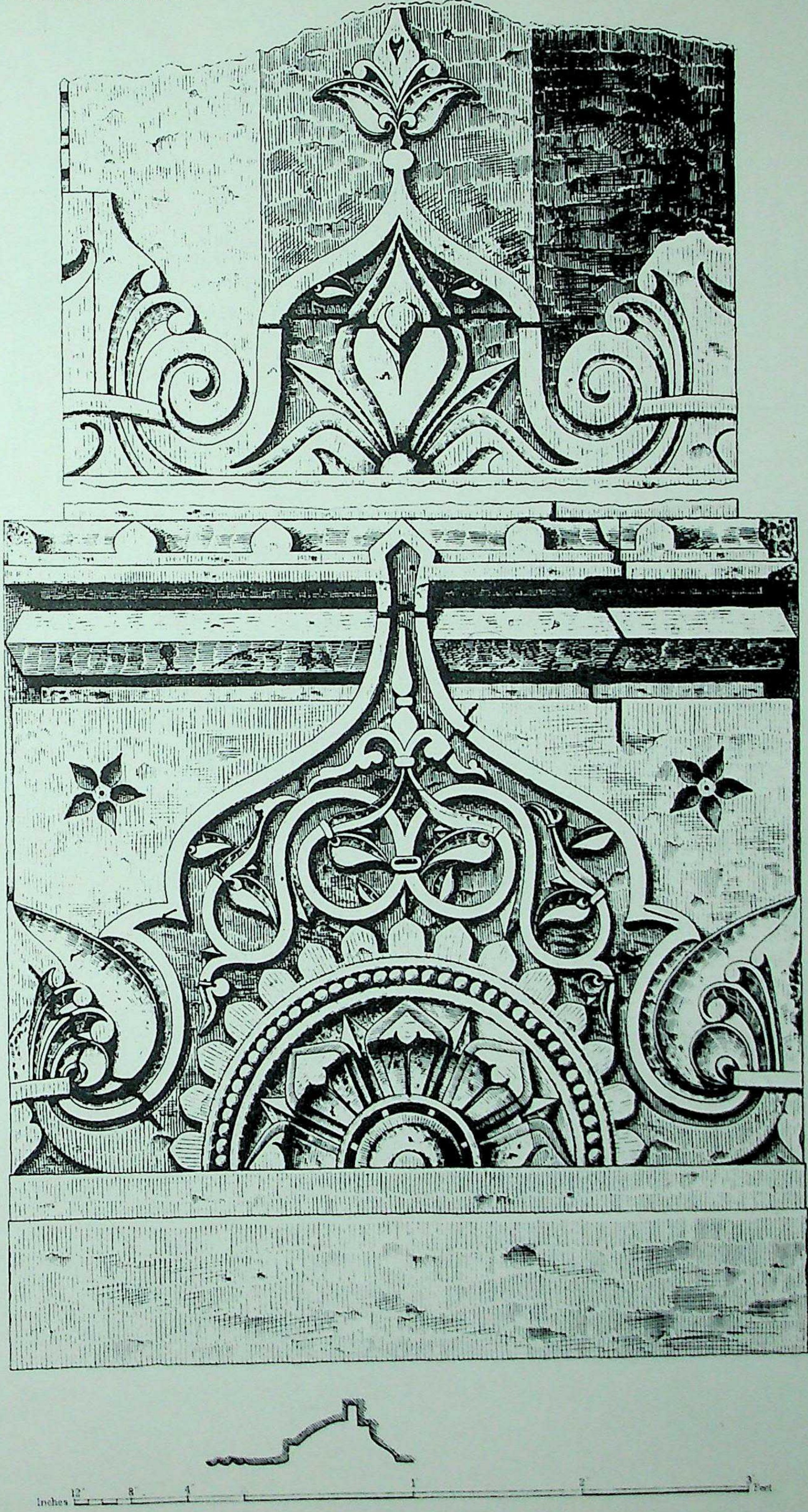
FATHPUR SÎKRÎ—ASTROLOGER'S SEAT.

DETAIL OF BASE OF SHAFT.

AMONGST other buildings at Fathpur Sikrî is a small Chattrî built in the style of architecture employed by the Jainas known as the Astrologer's seat. It was erected by Akbar, so tradition tells us for the exclusive use of a *yogi*. It is built in the form of a square with a column at each of the corners supporting a domed roof. Between the columns are curious struts which meet midway beneath the centre of the stone beams carrying the roof spanning the open space between the piers. The upper parts of the columns are octagonal, and the lower square. On the illustration, only the octagonal portion is seen, and the base below the square part of the shaft. Below the base is a plain plinth, which does not appear on the drawing. The semi-circular patera carved with lotus leaves is enclosed by a coronet studded with small beads. A section of it is given at the bottom of the plate. The face of the base is carved with a leaf scroll contained in an arch-like panel raised upon the centre of the base which terminates in angle volutes carved upon the lower corners. The top of the base is moulded. The mouldings are somewhat coarse, and instead of projecting beyond the outer face of the base set back from it. The hatched lines on the drawings show the sections of the mouldings and the depth of the carving.

EDMD. W. SMITH.

GOVT ARCHÆOLOGICAL SURVEY OF N.W PROVINCES & OUDH, No 374



DETAIL OF BASE OF SHAFT ASTROLOGER'S SEAT FATEHPUR SIKRI

Survey of India Offices Calcutta May 1897

TECHNICAL ART SERIES, 1897.

PLATE XI.

CHAURÂSI GUMBAZ—KÂLPÎ—NORTH-WESTERN PROVINCES.

DETAIL OF ONE OF THE UPPER PANELS ON THE NORTH FACADE.

THE old town of Kâlpî is in the Jalaun District stands on a rugged cliff on the right bank of the Jamnâ, not far from the new station of the Indian Midland Railway. Raja Bir Bal, Akbar's companion and Prime Minister, was born here. Drawings of his palatial residence at Fathpur Sîkrî have appeared from time to time in different parts of this journal. Kâlpî underwent many changes and eventually succumbed to Akbar. The English took it in 1793, abandoned it, and again occupied it in 1803.

The Chaurâsi Gumbaz (or eighty-four domes) is by far the largest and most important of the many ruins to be seen at Kâlpî. Erected as a mausoleum it contains several tombs, the chief of which lie beneath the grand dome. Some say Lodishah Badshah is buried here, others Sikandar Lodi, but this is not correct as it is known he was interred at Delhi. The walls are built of red sandstone rubble laid in lime and mortar coated on the outside with stucco.

The façades alike in design, are cut up by arches and piers, divided up by horizontal string courses. At the four angles of the tomb are pretty bastions, and the piers between them are richly panelled. Plate XI affords a sample of a panel in the upper part of one of the piers on the north side of the buildings. It is 3′·10½″ high and 2′·9″ wide. The carved detail, all in stucco, although very fine and elaborate, is overdone for external purposes. The inner face of the niche is recessed some 11″ from that of the wall and is somewhat spoilt by the band of horizontal mouldings separating it into two parts to the detriment of its height, and thereby giving it a stunted and dwarfed appearance. The arch in the upper part of the panel is very elaborately ornamented and the space between it and the horizontal moulding is occupied by a geometrical field of interesting circles circumscribed by a large outer circle standing on a ground of tiny rosettes. Encircling the geometrical ornamentation in the tympanum is an interlacing guilloche, and enclosing this again is a border of floral carving girdled by two bands carved with the chain and strawberry ornament.

The spandrils are ornately cut with floral ornamentation and are enclosed by a raised frame studded with rosettes in relief.

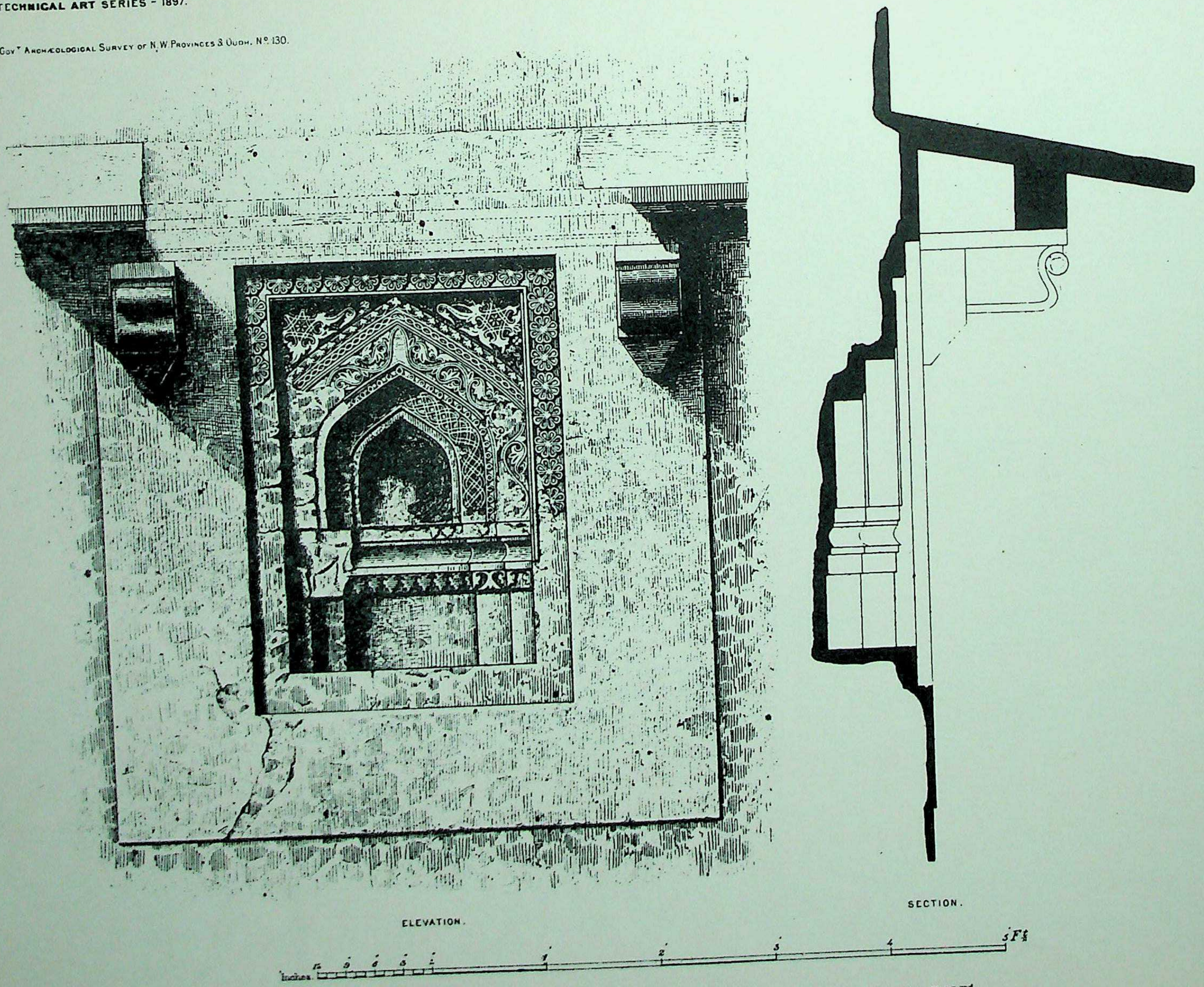
Over the top of the panel is deep drip-stone supported on stone brackets, which are seen in the elevation and section. This protected the intricate and delicate ornamentation to a great extent from the weather, but although this precaution was taken for its protection and for effects sake as well, it would have been more in place inside than outside the building. Similar decoration is frequently met with upon Moghal buildings but in not quite so an elaborate form.

EDMD. W. SMITH.

TECHNICAL ART SERIES - 1897.

PLATE XI.

Govt Archæological Survey of N. W. Provinces & Oudh. No. 130.



ELEVATION.

SECTION.

DETAIL OF ONE THE UPPER PANELS ON NORTH FACADE, CHAURASI GUMBAZ. KALPI.

Photo-etching

Survey of India Offices, Calcutta, November 1897.

TECHNICAL ART SERIES, 1897.

PLATE XI.

CHAURÂSI GUMBAZ—KÂLPÎ—NORTH-WESTERN PROVINCES.

DETAIL OF ONE OF THE UPPER PANELS ON THE NORTH FACADE.

THE old town of Kâlpî is in the Jalaun District stands on a rugged cliff on the right bank of the Jamnâ, not far from the new station of the Indian Midland Railway. Raja Bir Bal, Akbar's companion and Prime Minister, was born here. Drawings of his palatial residence at Fathpur Sîkrî have appeared from time to time in different parts of this journal. Kâlpî underwent many changes and eventually succumbed to Akbar. The English took it in 1793, abandoned it, and again occupied it in 1803.

The Chaurâsi Gumbaz (or eighty-four domes) is by far the largest and most important of the many ruins to be seen at Kâlpî. Erected as a mausoleum it contains several tombs, the chief of which lie beneath the grand dome. Some say Lodishah Badshah is buried here, others Sikandar Lodi, but this is not correct as it is known he was interred at Delhi. The walls are built of red sandstone rubble laid in lime and mortar coated on the outside with stucco.

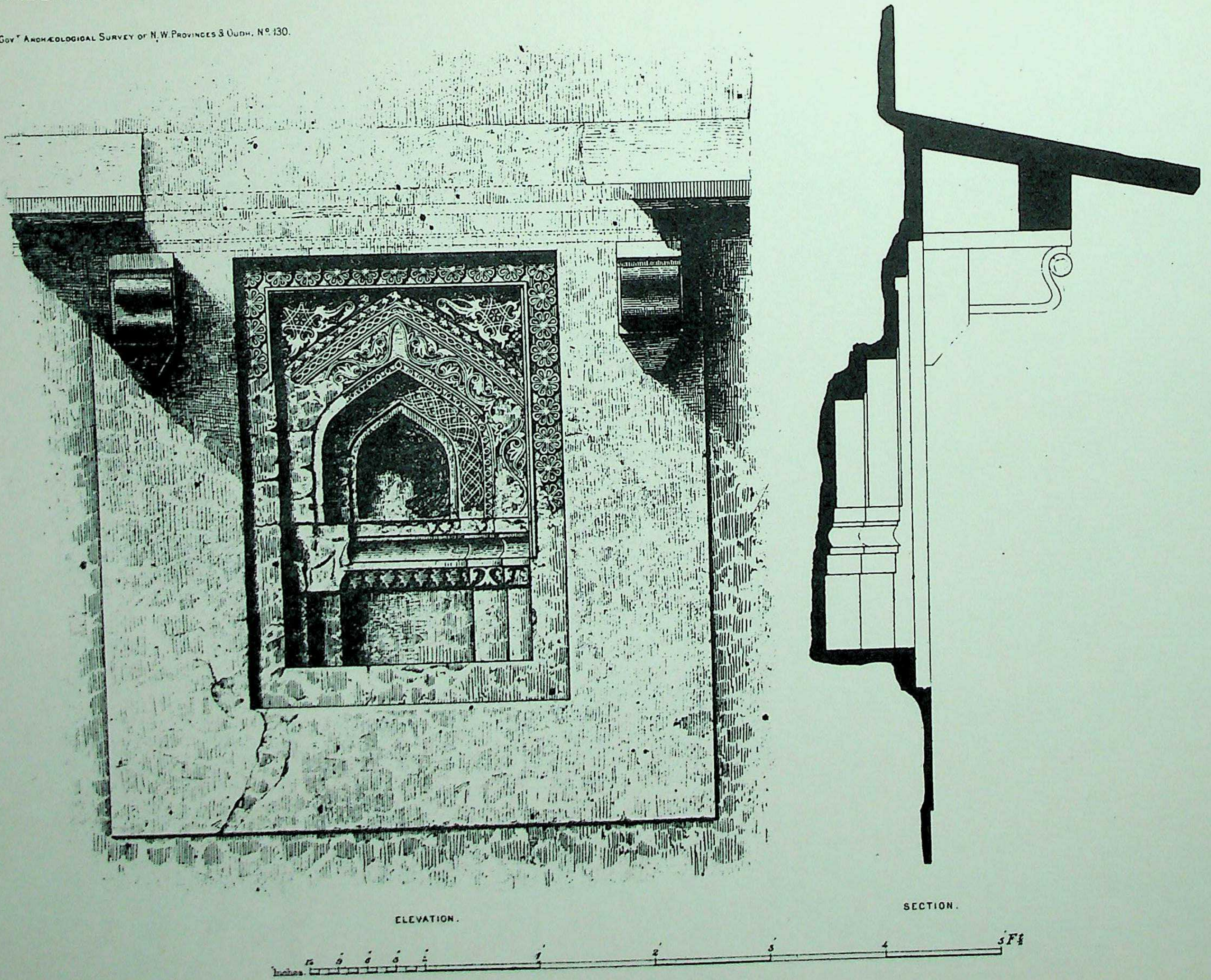
The façades alike in design, are cut up by arches and piers, divided up by horizontal string courses. At the four angles of the tomb are pretty bastions, and the piers between them are richly panelled. Plate XI affords a sample of a panel in the upper part of one of the piers on the north side of the buildings. It is 3′·10½″ high and 2′·9″ wide. The carved detail, all in stucco, although very fine and elaborate, is overdone for external purposes. The inner face of the niche is recessed some 11″ from that of the wall and is somewhat spoilt by the band of horizontal mouldings separating it into two parts to the detriment of its height, and thereby giving it a stunted and dwarfed appearance. The arch in the upper part of the panel is very elaborately ornamented and the space between it and the horizontal moulding is occupied by a geometrical field of interesting circles circumscribed by a large outer circle standing on a ground of tiny rosettes. Encircling the geometrical ornamentation in the tympanum is an interlacing guilloche, and enclosing this again is a border of floral carving girdled by two bands carved with the chain and strawberry ornament.

The spandrils are ornately cut with floral ornamentation and are enclosed by a raised frame studded with rosettes in relief.

Over the top of the panel is deep drip-stone supported on stone brackets, which are seen in the elevation and section. This protected the intricate and delicate ornamentation to a great extent from the weather, but although this precaution was taken for its protection and for effects sake as well, it would have been more in place inside than outside the building. Similar decoration is frequently met with upon Moghal buildings but in not quite so an elaborate form.

EDMD. W. SMITH.

GOVT ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH, No. 130.


ELEVATION.
SECTION.
Inches.
12
9
6
3
0
1
2
3
4
5 Ft.

DETAIL OF ONE THE UPPER PANELS ON NORTH FACADE, CHAURASI GUMBAZ. KALPI.

Photo-etching

Survey of India Offices, Calcutta, November 1897.

TECHNICAL ART SERIES, 1897.

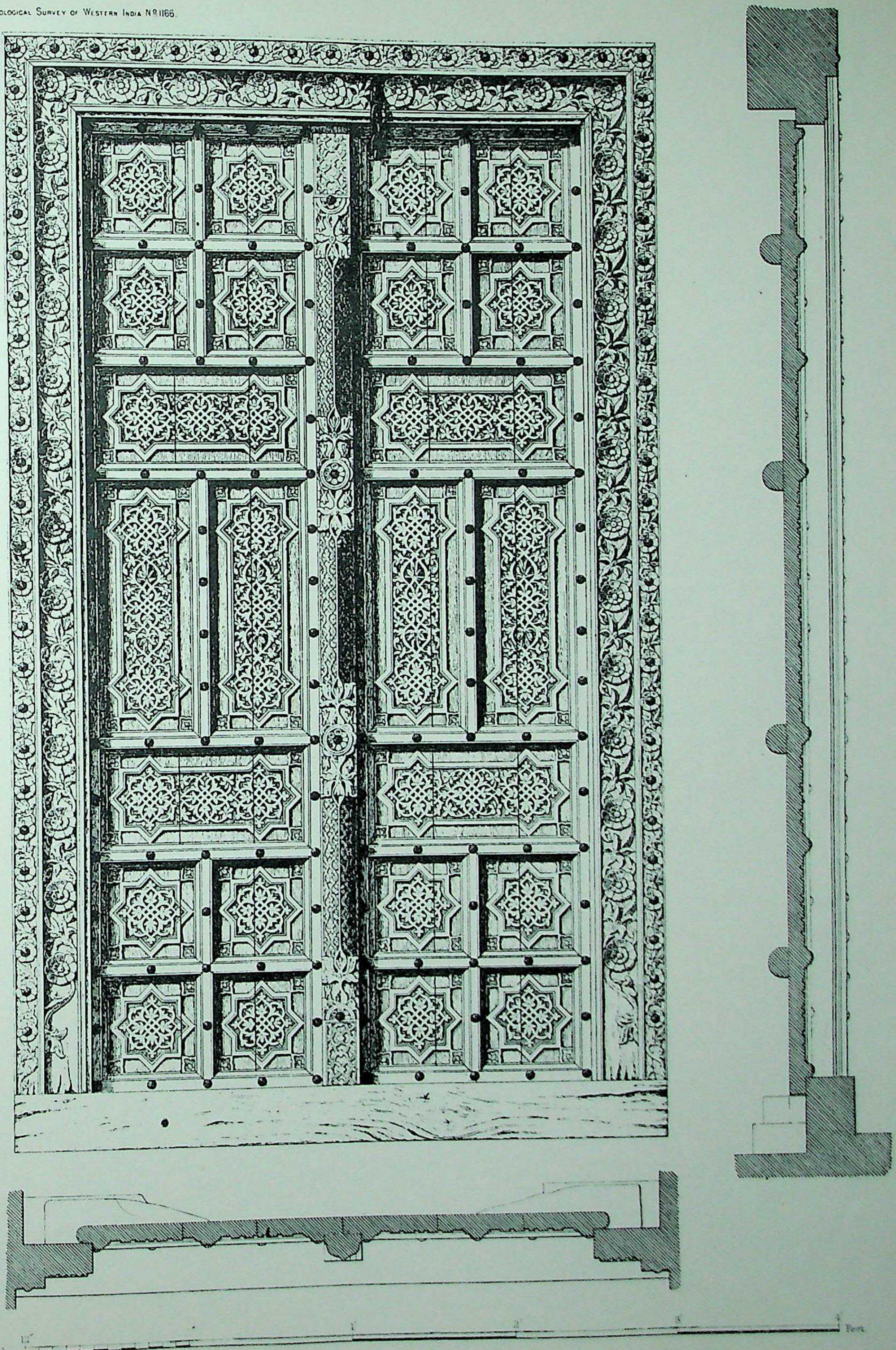
PLATE XII.

DOOR FROM THE FORT AT HYDERABAD, SIND.

THIS plate represents a carved wooden door in one of the buildings which forms part of the old palace of the Mirs of Sind, still preserved in the fort at Hyderâbâd. Some of the old tombs and mosques of Sind have doors in similar style, but like most native workmanship, though the carving is good, the setting and joinery is poor. The design and arrangement of the panelling is very simple but effective. Ornamented iron studs, at intervals, add to the general effect.

H. C.

GOVT ARCHÆOLOGICAL SURVEY OF WESTERN INDIA Nº 1166.


12"
Inches
1'
2'
3'
4'
Feet

DOOR FROM THE FORT. HYDERABAD. SIND

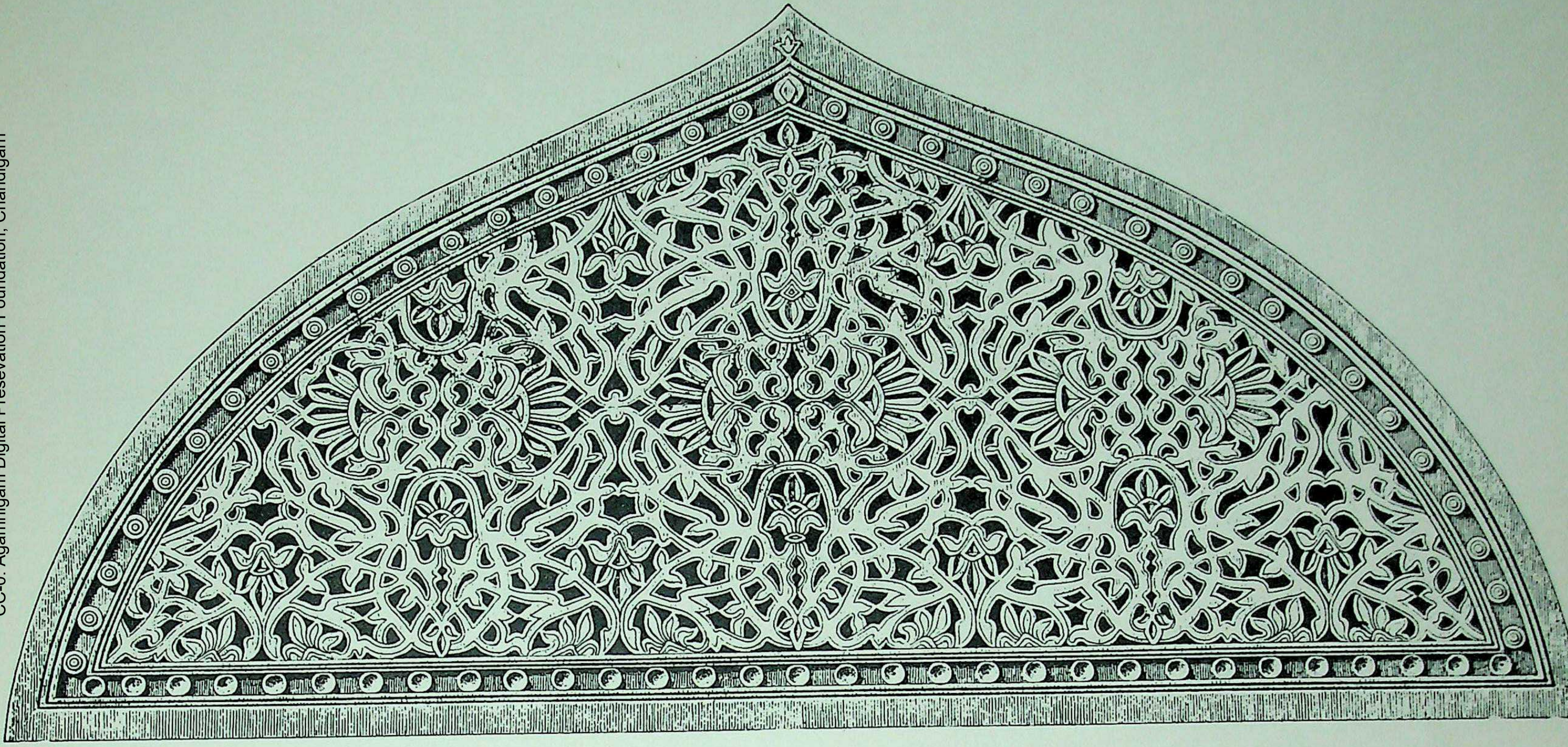
TECHNICAL ART SERIES, 1897.

PLATE XIII.

PERFORATED TERRA-COTTA WINDOW FROM A TOMB AT SEHWAN, SIND

SIND is noted for its work in clay pottery, tiles, and perforated screens, both glazed and unglazed, all being used in the construction and adornment of the old tombs and mosques of the Musalman governors and saints of that province. Perforated windows and screens are either floral or in strait-lined intricate geometric patterns, the former being as a rule unglazed while the latter are glazed. The accompanying plate represents one of the first kind, rather lace-like in its design, which occupies the arched space over the entrance door-way of an otherwise dilapidated tomb at Sehwan.

H. C.



PERFORATED TERRA-COTTA WINDOW FROM A TOMB AT SEHWAN, SIND.

TECHNICAL ART SERIES, 1897.

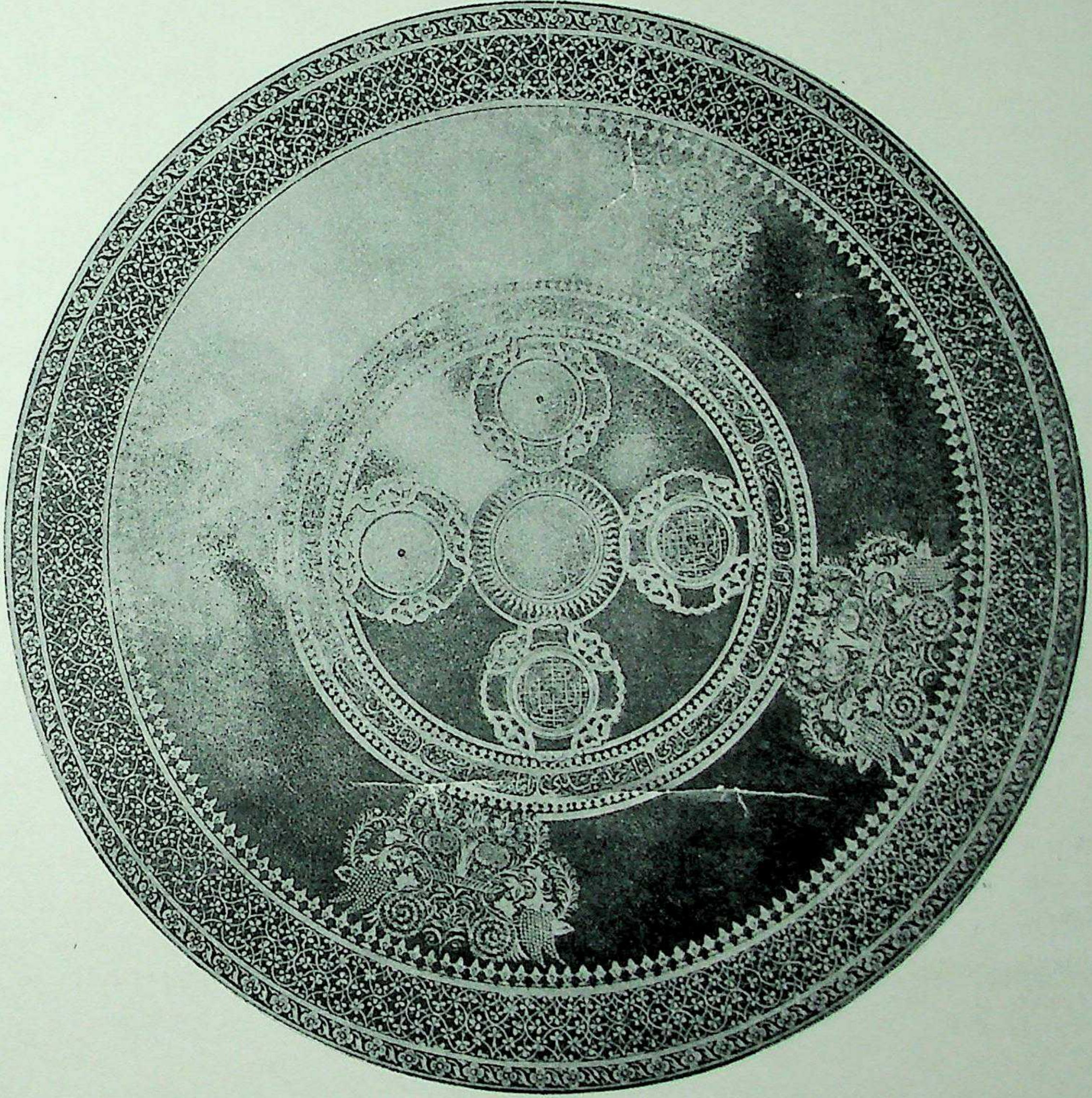
PLATE XIV.

OLD PERSIAN DAMASCENED SHIELD.

THIS plate presents the upper surface of an old Persian shield of damascened steel, variously and intricately ornamented with well-executed scroll and flower patterns incrusted in gold. The workmanship is remarkably fine, and the varied and symmetrical intricacy of the ornamentation, employed in decorating the outer concentric circles and consisting of flowerlets and bouquets of vine, water-lilies, chrysanthemums and forget-me-nots, produces a pleasing and highly artistic effect. The intrinsic beauty of the ornamentation used in embellishing the centre field of the shield consists of minutely-written inscriptions in Arabic characters, giving the names of the twelve *Imāms*, or Shiah martyrs, in the outer circle, whilst the supplication of "oh Ali!" is artistically arranged in neat Tughra characters four times on each knob, supporting the true centre, surrounded by the rays of the sun and embossed with the following inscription in Tughra: "this shield is like the shield of Ali, oh Ali, oh Ali, oh Ali!" As is well known, Ali was the son-in-law and, according to the belief of the Shiah sect, the first legitimate successor of Muhammad. This shield was most probably executed at Ispahan in the time of Shah Abbas the Great (A. D. 1586-1628) in whose reign Persian Art attained a high, if not the highest degree of excellence. The original is now in the Art Collection of the Lucknow Provincial Museum, having been purchased in 1895 from Jaswant Mistri of Meerut for rupees eighty.

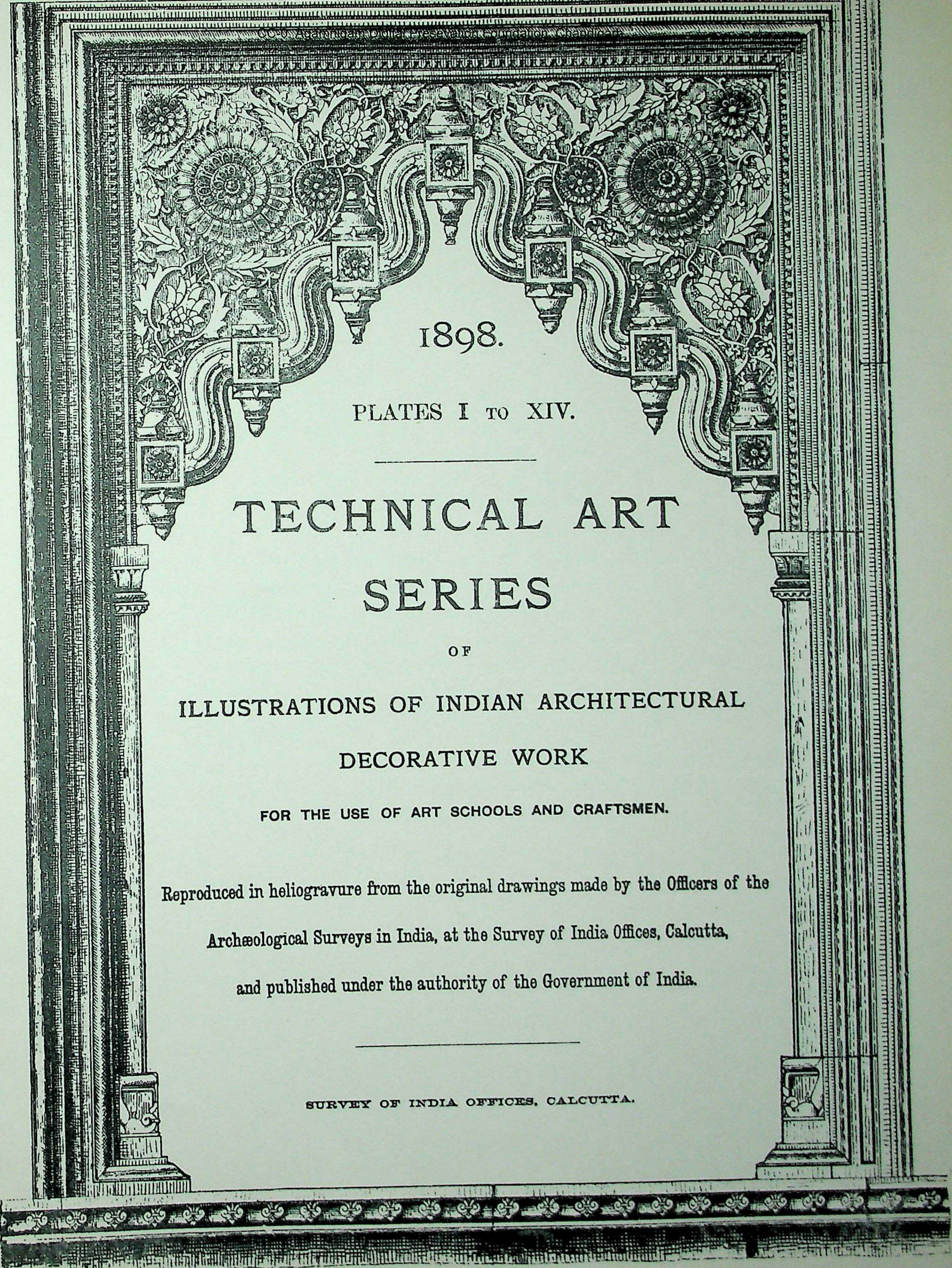
A. FUHRER.

OLD PERSIAN DAMASCENED SHIELD.



PLAN OF UPPER SURFACE

CC-0. Agamnigam Digital Preservation Foundation, Chandigarh



1898.

PLATES I TO XIV.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original drawings made by the Officers of the
Archæological Surveys in India, at the Survey of India Offices, Calcutta,
and published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

PLATE I Carved Dado Panel in Red Sandstone, Turkish Sultana's House, Fathpur Sikri.
„ II Details of Stone Sills beneath wall recesses, Jodh Bai's Palace, Fathpur Sikri.
„ III and IV Principal Mihrab of the Jami Masjid, Fathpur Sikri.
„ V to VIII Mihrabs in the Jami Masjid, Fathpur Sikri.
„ IX Pilaster of Mediæval Ruined Jaina Temple at Atru-Ganeshganj in the Kotah State, Eastern Rajputana.
„ X Ancient Image of Vishnu from Batesar.
„ XI A Huqqa-bottom, Old Bidri Ware, from Lucknow.
„ XII Specimen of Bidri Ware, from Hyderabad.
„ XIII A Huqqa-bottom, Bidri Ware from Hyderabad.
„ XIV An Old Persian Demascened Plate.

TECHNICAL ART SERIES, 1898.

NEW SERIES.

AS the scope of the Technical Art Series has been confined mainly to architectural detail ever since its first publication, it is considered that the time has come to add to its usefulness by illustrations of other branches of Applied Art. It would be well for those connected with Technical Art Schools, and others who interest themselves in practical design, to bear in mind that, in all Applied Art, processes and materials have a direct and inseparable connection with style of design: a design which is good in stone carving may be bad if copied in metal; another which is harmonious when painted on a vase may be indifferent, or impossible of execution, in a textile fabric. Those who make use of the illustrations in the Technical Art Series and other publications as patterns to be copied should be very careful tc consider the technical limitations and possibilities of the materials and processes employed. It would be a safe rule for those who have not studied the theory and practice of ornamental design never to copy a design except by the process in which it was originally executed.

E. B. HAVELL.

TECHNICAL ART SERIES, 1898.

PLATE I.

FATHPÛR SÎKRÎ: TURKISH SULTÂNA'S HOUSE.

CARVED DADO PANEL IN RED SANDSTONE.

THE Turkish Sultâna's house consists of a small chamber, surrounded by a verandah, built entirely in red sandstone 13′-4½″ by 13′-2½″ inside, having an external dimension of 16′-3″. Although so small, the building is a remarkable one, being carved both inside and out from top to bottom.

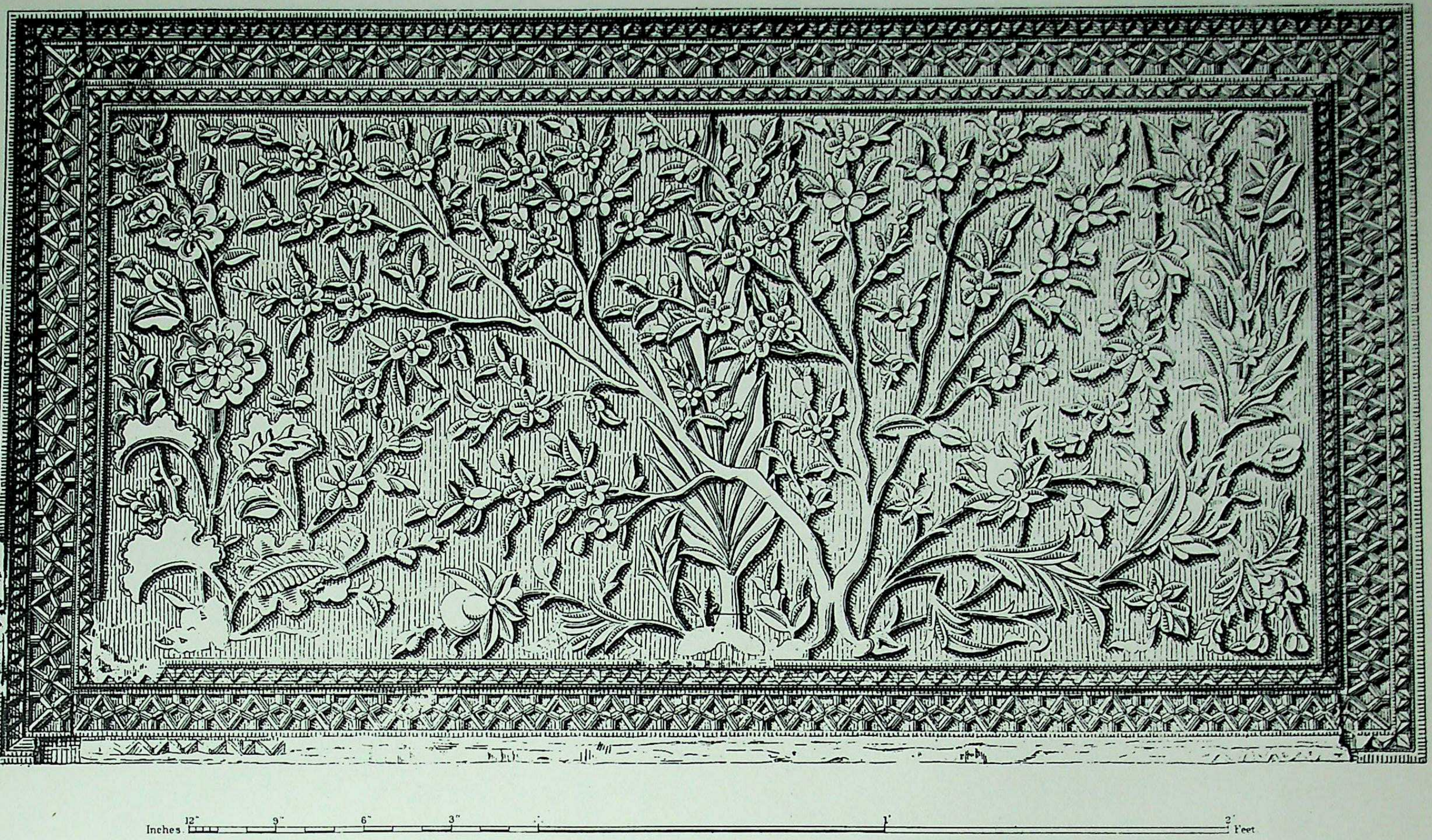
The facades are of no great height, but in outline they are picturesque and for elaboration of detail are unsurpassed in India. On the west side is a portico 8′-8″ wide and 16′-4″ long.

Plate I is a carved dado panel from the interior of the chamber. It portrays a garden walk. The plants and shrubs are in full bloom. In the centre of the panel is a cypress partly concealed by the branches of an almond tree, which occupy the greater part of the panel. The carving of the foliage is Persian in feeling. Attention should be called to the peculiar treatment of two of the branches, laden with flowers, which are bent downwards almost at right angles to the boughs, and fill up what would otherwise have been a bald and blank space. The treatment is decidedly peculiar and characteristic of the period.

The panel is set in a geometrically carved frame enclosed by a broad border chiselled with an elaborate fret. (This is not shown on the illustration, but it was illustrated in Plate XI of this journal; Part for the year 1891.) In all there are eight panels in the walls of the room, and each is richly decorated with conventional carving, some of which is Chinese-like in touch and feeling. This has led many to suppose that Akbar employed Chinese amongst other artizans upon the enrichment of his palaces.

EDMD. W. SMITH.

GovT Archæological Survey of N W Provinces & Oudh, No 222



CARVED DADO PANEL IN RED SANDSTONE, TURKISH SULTANA'S HOUSE, FATEHPUR SIKRI

Photo-etching.

Survey of India Offices Calcutta, September 1898

TECHNICAL ART SERIES, 1898.

PLATE II.

FATHPÛR SÎKRÎ: JODH BÂÎ'S PALACE.

DETAILS OF STONE SILLS BENEATH WALL RECESSES.

PLATE II illustrates some moulded sills from Jodh Bâî's palace running below the wall recesses or niches in the ground-floor rooms surrounding the open courtyard in the centre of the palace. The sills shown on Figs. 1 and 3 are divided into two parts. In each case the upper member is a plain one and projects in front of, and forms a capping to the lower mouldings, which are beautifully carved, as the illustrations show, with leafage and scrolls in relief. The contour of the mouldings are shown in the sections on the right-hand side of the plate. The sills, all of stone, are 6″ deep and project 3½″ from the face of the wall. In some instances the ends of the sills are carved with bell-shaped pedestals, which appear to have been used for standing *chirâgs* or small lamps upon.

EDMD. W. SMITH.

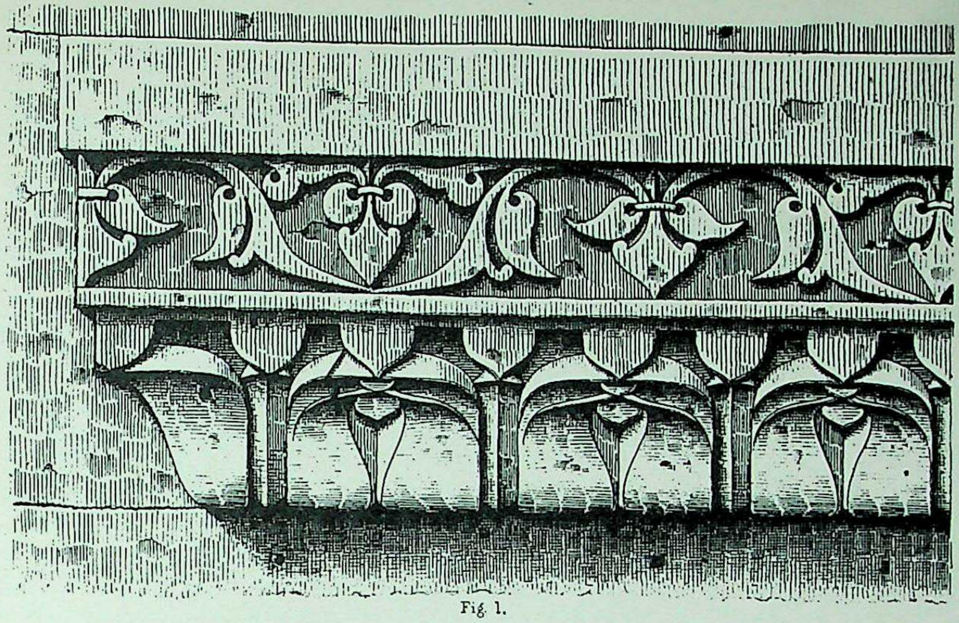
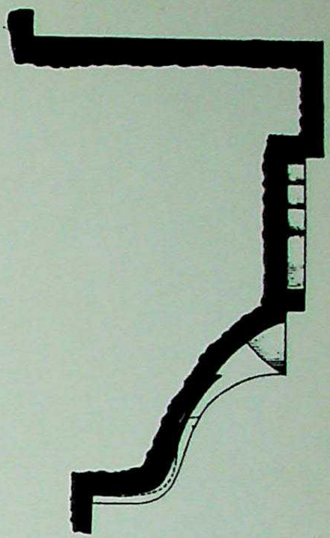


Fig. 1.



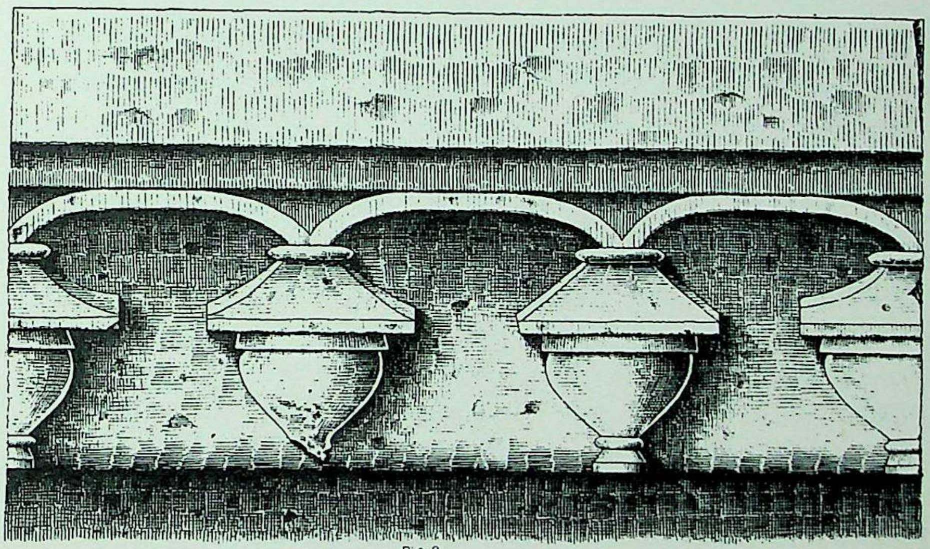
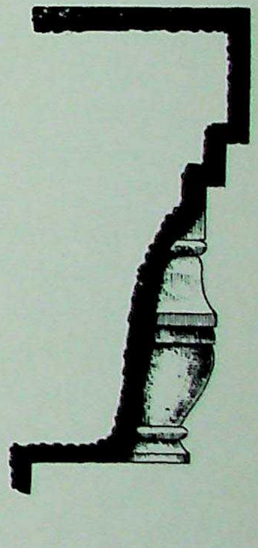


Fig. 2.



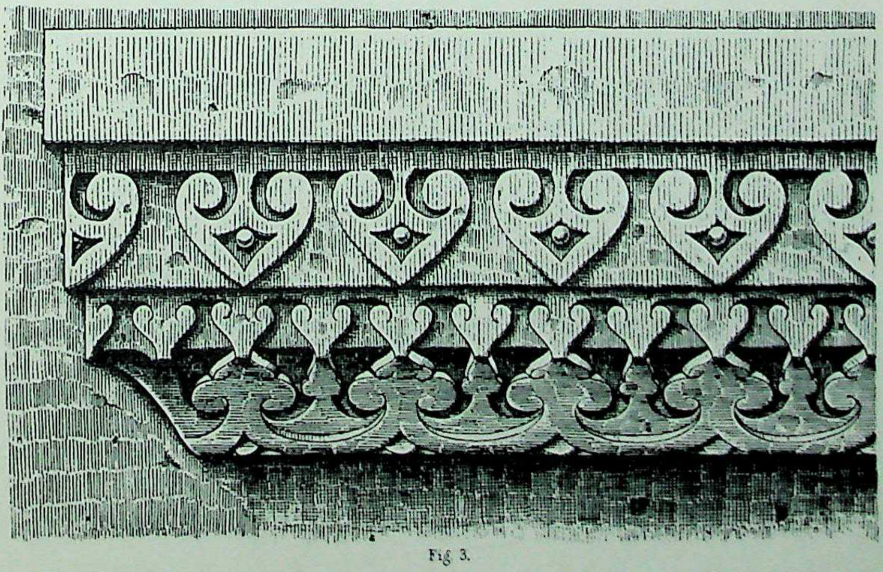
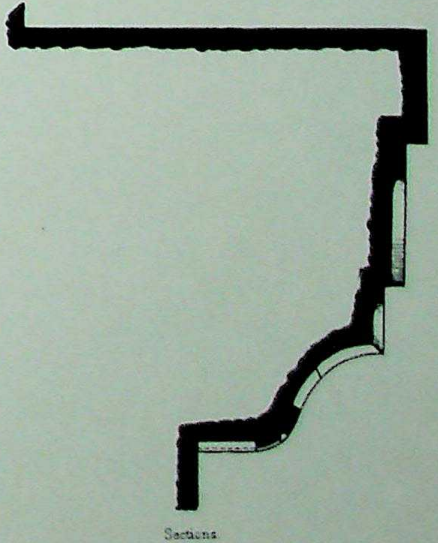


Fig 3.



Sections.

Inches
12"
9"
6"
3"
1"

DETAILS OF STONE SILLS BENEATH WALL RECESSES, JODH BAI'S PALACE, FATEHPUR SIKRI.

Survey of India Offices, Calcutta September, 1898.

TECHNICAL ART SERIES, 1898.

PLATES III AND IV.

PRINCIPAL MIHRÂB OF THE JÂMÎ' MASJID, FATHPÛR SÎKRÎ.

THE Jâmî' Masjid at Fathpûr Sikrî, from which Plates III to VIII inclusive are taken, is the largest and one of the finest buildings in the city. Exclusive of the bastions upon the angles, the building measures 542′-0″ from east to west to the outside of the *lîwân* or sanctuary, or 515′-3″ to the outside of the west main wall and 438′-0″ from north to south. The general plan chosen by Muhammadans for their mosques has been adhered to. In the middle is a large open court, measuring 359′-10″ by 438′-9″, surrounded on the north, south and east sides by spacious cloisters 39′-0″ in depth, and on the west by the *lîwân* itself 288′-2″ in length by 65′-0″ deep. It was erected in A. D. 1571.

On the north, south and east sides of the quadrangle are large gates. That on the south, the Buland Darwaza, is the largest. It was erected towards the close of Akbar's reign to commemorate his victory over the Dakhan, and in all likelihood replaced another gate designed more in accordance with those on the east and north sides of the courtyard. The Buland Darwaza is the highest and grandest gateway in India and ranks amongst the biggest in the world. It stands on rising ground, and this adds considerably to its majesty. In height it is some 134′-0″ measured from the pavement in front of the entrance, or, if to the bottom of the steps approaching it, 176′-0″. In width the gate is 130′-0″ across the front. It is built in the form of a semi-octagonal bay. In the centre is an embowed porch or portico, in which are three portals leading to the masjid quadrangle. The centre one is larger than the others and forms the principal entrance. The others are smaller and lead into rooms built in the sides of the portico. The smaller entrances are oblong in shape and are enclosed by architraves in stone and marble. The head of the door is closed by two stone brackets 2′-1″ high, 2′-7″ in length.

On the under side, the brackets are cut into three tiers or steps, and beneath the lower and upper tiers diminutive carved brackets are introduced whilst under the middle there is a circular pendant enriched with leafage, beading, etc., with a square cap. The front face of the bracket is divided into six panels. Those nearest the architrave are filled in with carved leaf ornamentation in relief, whilst the others are occupied with crosses of leaves contained within foliated figures raised from the flat surface of the panel.

The lintels over the doors are supported by the brackets and are divided into nine small panels filled with leaf carving. These are the only doorway brackets in Fathpûr Sîkrî treated in this manner, the front surface generally being quite plain as in Jodh Bâî's palace, or, ornamented with a mass of carving as seen in Bîr Bâl's house.

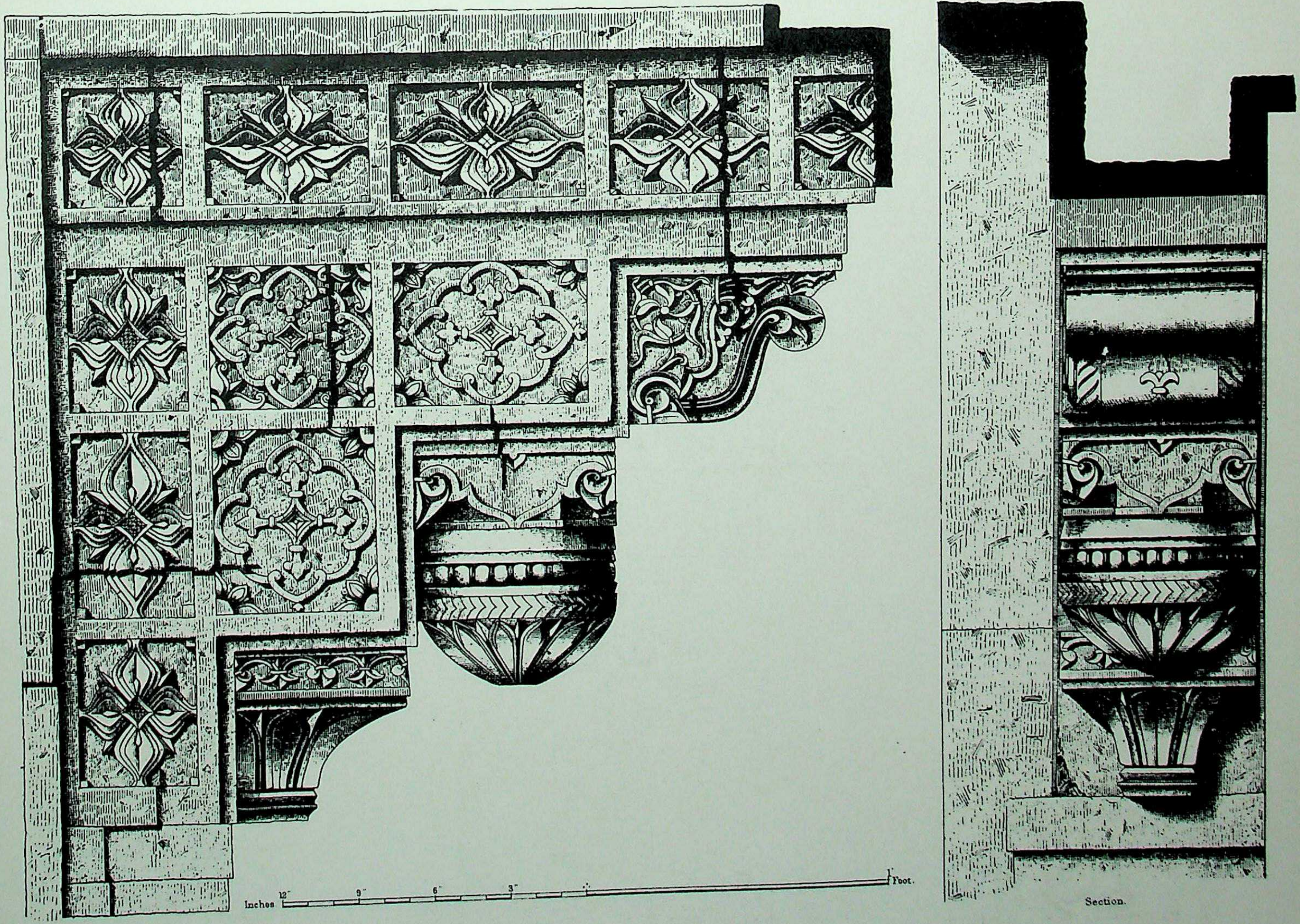
The depth of the carving is shown by hatched lines on the drawing; a section through the lintel showing the side of the bracket is given at Fig. 2.

Plate IV illustrates three of the architraves round the archways in the Buland Darwaza. Fig. 1 shows that round the arch over the central or principal doorway, known as "the horse-shoe gate" on account of the horse-shoes which have been nailed on to the door for luck from time to time by peasants and others. Fig. 2 exemplifies the carving on the face of the great arch in front of the portico or portal, whilst Fig. 3 illustrates a sculptured band round one of the small archways on the east of the portico. The architraves are in red sandstone, and in each instance they are carved, as the illustrations show, with floral scrolls. The depth of the carving may be ascertained from the sections given on the plates.

EDMD. W. SMITH.

TECHNICAL ART SERIES — 1898.

GOVT ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH, No 550.


Inches 12" 9" 6" 3" 1 Foot.
Section.

DETAIL OF BRACKET, BALAND DARWAZA, FATEHPUR SIKRI.

TECHNICAL ART SERIES — 1898.

PLATE IV.

Govt Archæological Survey of N. W. Provinces & Oudh, No. 554.

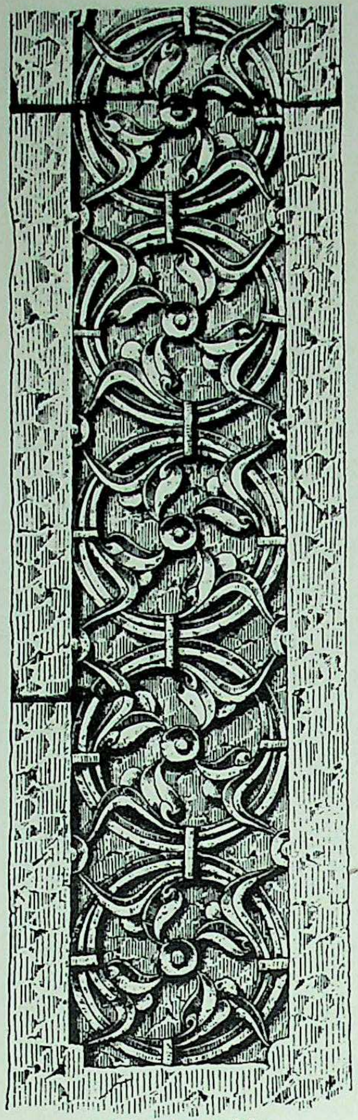


Fig. 1. Architrave round the Horse-shoe gate.

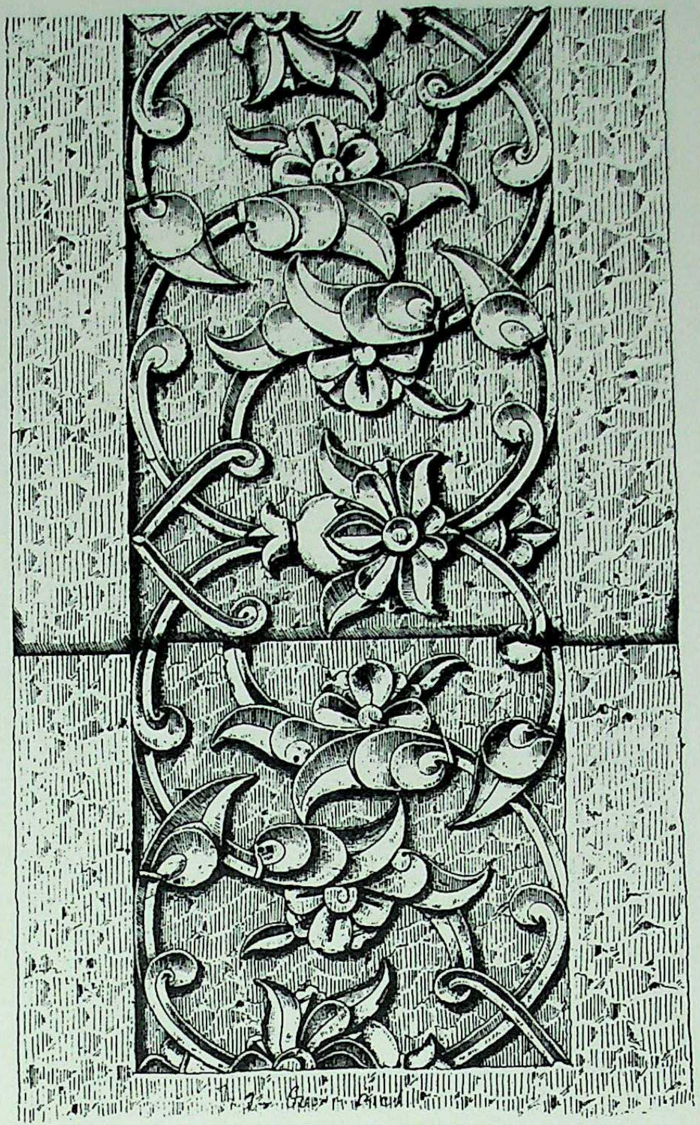


Fig. 2. Carved band round the great arch.

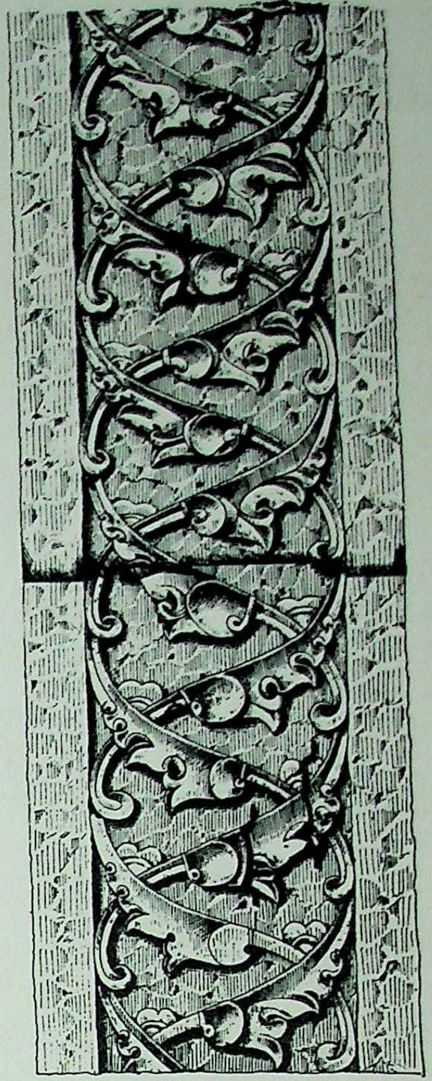


Fig. 3. Carved band upon arch on the east side of the gate.

Inches
12"
9"
6"
3"
0
1'
Foot.

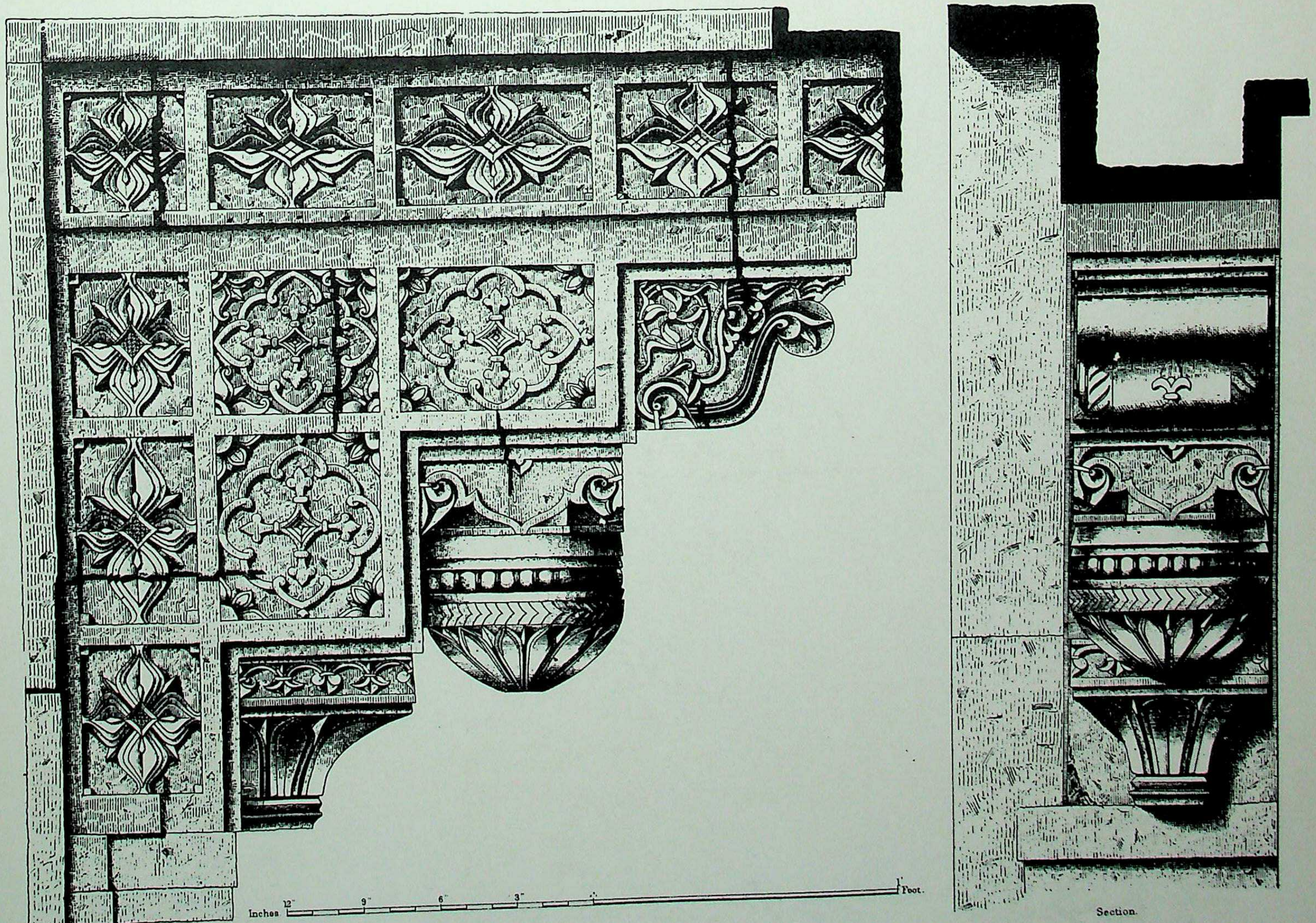
DETAIL OF ARCHITRAVES, BALAND DARWAZA, FATEHPUR SIKRI.

Photo-etching.

Survey of India Offices, Calcutta, September, 1898.

TECHNICAL ART SERIES — 1898.

GOVT ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH, Nº 550.


Inches
12"
9"
6"
3"
1 Foot.

Section.

DETAIL OF BRACKET. BALAND DARWAZA, FATEHPUR SIKRI.

Govt Archæological Survey of N. W. Provinces & Oudh, No. 554.

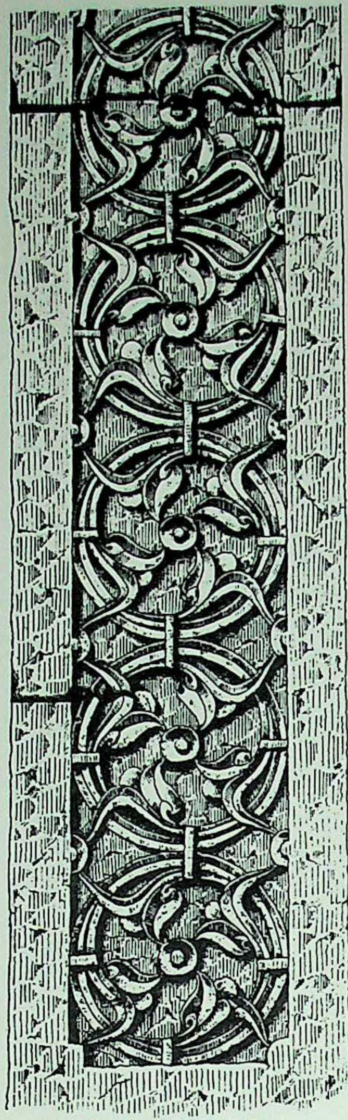


Fig. 1. Architrave round the Horse-shoe gate.

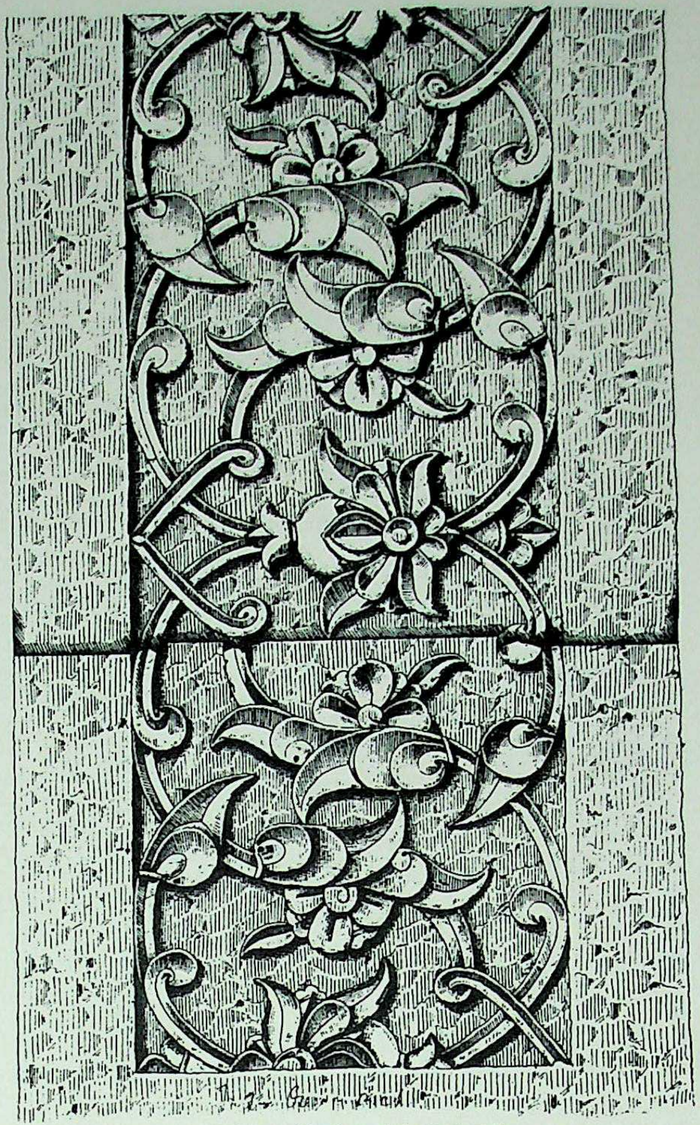


Fig. 2. Carved band round the great arch.

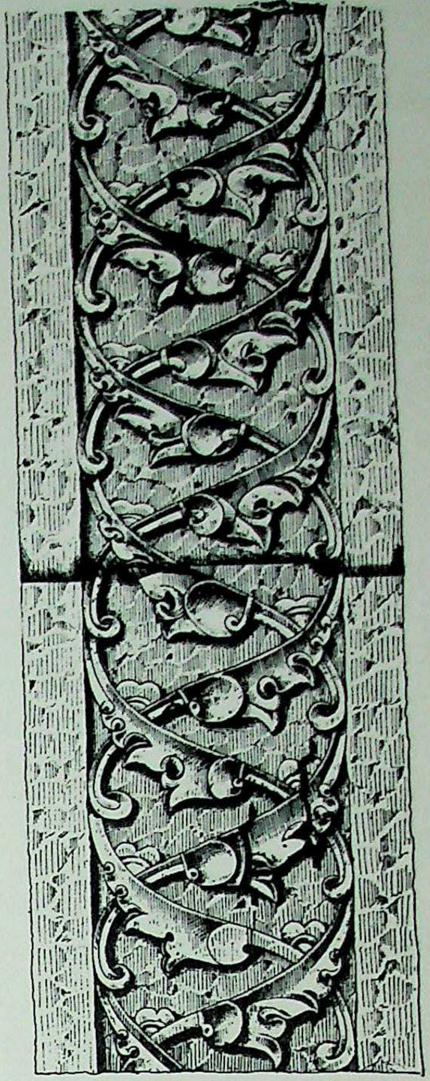
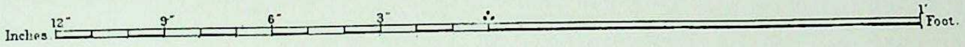


Fig. 3. Carved band upon arch on the east side of the gate.



DETAIL OF ARCHITRAVES, BALAND DARWAZA, FATEHPUR SIKRI.

Photo-etching

Survey of India Offices, Calcutta, September, 1898.

TECHNICAL ART SERIES, 1898.

PLATES V, VI, VII, AND VIII.

MIHRÂBS IN THE JÂMÎ' MASJID, FATHPÛR SÎKRÎ.

THE short description of the Jâmî' Masjid given in the letter-press describing the two preceding plates, Nos. III and IV, should be read with this text, explaining Plates V to VIII.

The interior side of the west wall of the *líwân*, or, prayer chamber, is recessed by *mihrâbs*, in front of which the Musalmân stands when performing his devotions. The principal *mihrâb*, immediately in the centre of the west wall of the *líwân*, is more ornate than the others. Upon the north side of it is the *mimbar* or pulpit.

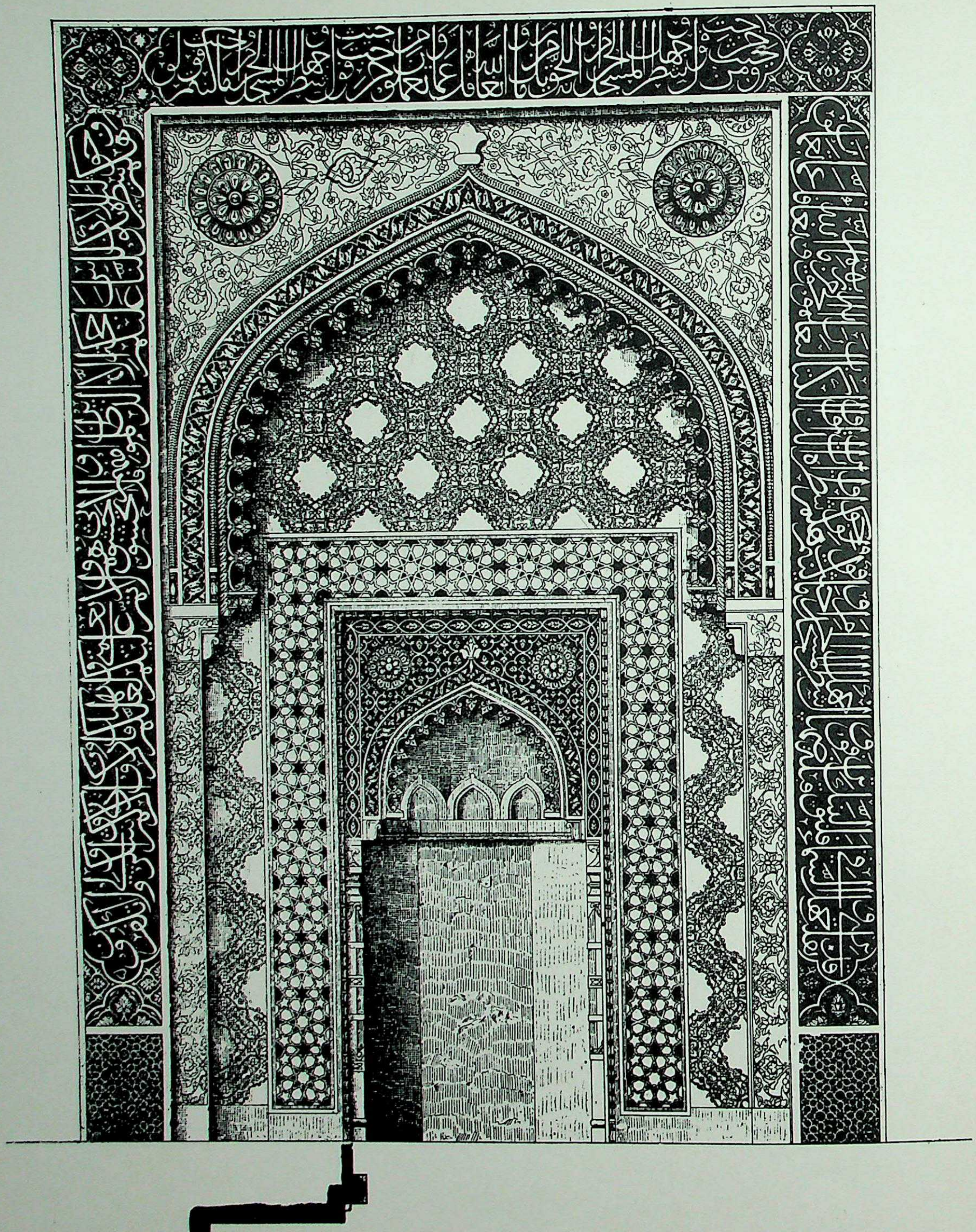
Plate V is an elevation of the principal *mihrâb*, and Plates VI and VII are details of it; whilst Plate VIII illustrates one of the less important *mihrâbs* on the south side of the principal *mihrâb*. The principal *mihrâb*, as the illustration shows, is surrounded by a broad rectangular sunken architrave starting from a flat geometrically carved base painted a deep blue and sculptured with verses from the Qurân, in raised Arabic characters overlaid in gold. Beneath the transverse head of the architrave is a four-centred and stilted arch delicately carved on the face with a rich undulating scroll in relief, between two narrow hexagonal shaped mouldings ornamented with the chevron, springing from balusters resting upon the imposts which are painted with floral scrolls in white, red and blue upon a chocolate ground. Around the soffit of the arch is a delicately carved cusping, springing from pretty brackets projecting horizontally just above the impost which is shown in detail on Fig. 1, Plate VII.

The space beneath the arch and the spandrils above are embellished with rich floral designs in colour. In the centre of the spandrils are carved leaf bosses overlaid with gilt. Beneath the big arch (Plate V) is a pentagonal shaped aperture half domed over on the top, and recessed 4′-3″ from the outer surface of the wall. Across the upper portion of the aperture is an archway supported on brackets standing on semi-octagonal shafts upon the jambs of the openings. The front of the arch is enriched with scroll carving and the spandrils (Plate VI) with bold leaf carved pateræ surrounded by a field of raised quatre-foils overlaid with gold on a dark blue ground. Confining the sides of the spandrils is a rectangular border carved with a raised chain pattern and flowers. Enclosing the whole is a geometrically carved architrave in red sandstone, inlaid with white and black marble.

The minor *mihrâbs* (Plate VIII) are not so wide as the principal one, but they are the same height. In the lower portion is a flat recess setting back 2′-6″ from the outer face of the wall, which is enclosed at the top by a similar archway to that over the recess in the principal *mihrâb*. The spandrils, however, are painted instead of being carved, with the exception of the bosses in the centre, which are in high relief. On the reveals (Figure 2, Plate VIII) grapes were painted and the back of the recess was also decorated in colour. The *jâlî* architrave, or frame round the *mihrâb*, is in red stone inlaid with blue enamel and white marble. The octagonal shafts upon the sides of the recess are of Hindû design, and round them is an edging of lotus buds, a favourite Hindû ornament, which is frequently found upon the Fathpûr Sikrî buildings. Above the recess is a cusped arch, and the spandrils are beautified with painted decorations in the shape of floral scrolls, grouped round leaf pateræ in the centre. Confining the whole is a broad architrave, but unlike that round the principal *mihrâb* (Plate V), it is enriched with exquisite geometrical tracery in red stone, inlaid with white marble, studded at regular intervals with blue and green stars in enamel. Along the top, the field of the architrave is divided into two by a sunk panel, upon which is painted a scroll in orange edged with white upon a deep crimson ground.

EDMD. W. SMITH.

Govt Archæological Survey of N. W. Provinces & Oudh, No. 513


Inches
12"
6"
0
1'
2'
3'
4'
5'
6'
Feet

PRINCIPAL MÍHRÂB OF THE JÂMÍ MASJID, FATEHPUR SIKRI.

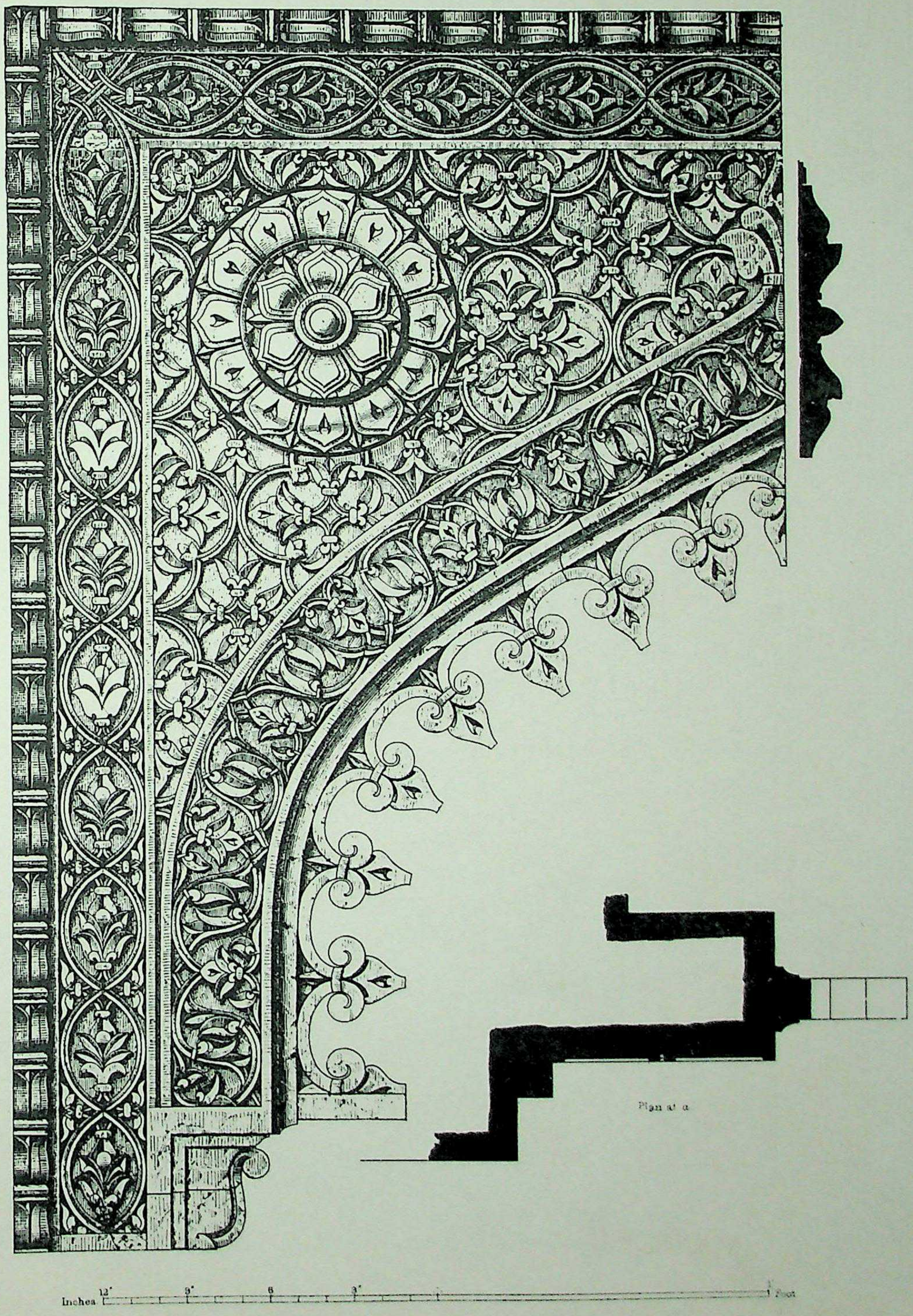
Photo-etching.

Survey of India Offices, Calcutta, September 1898.

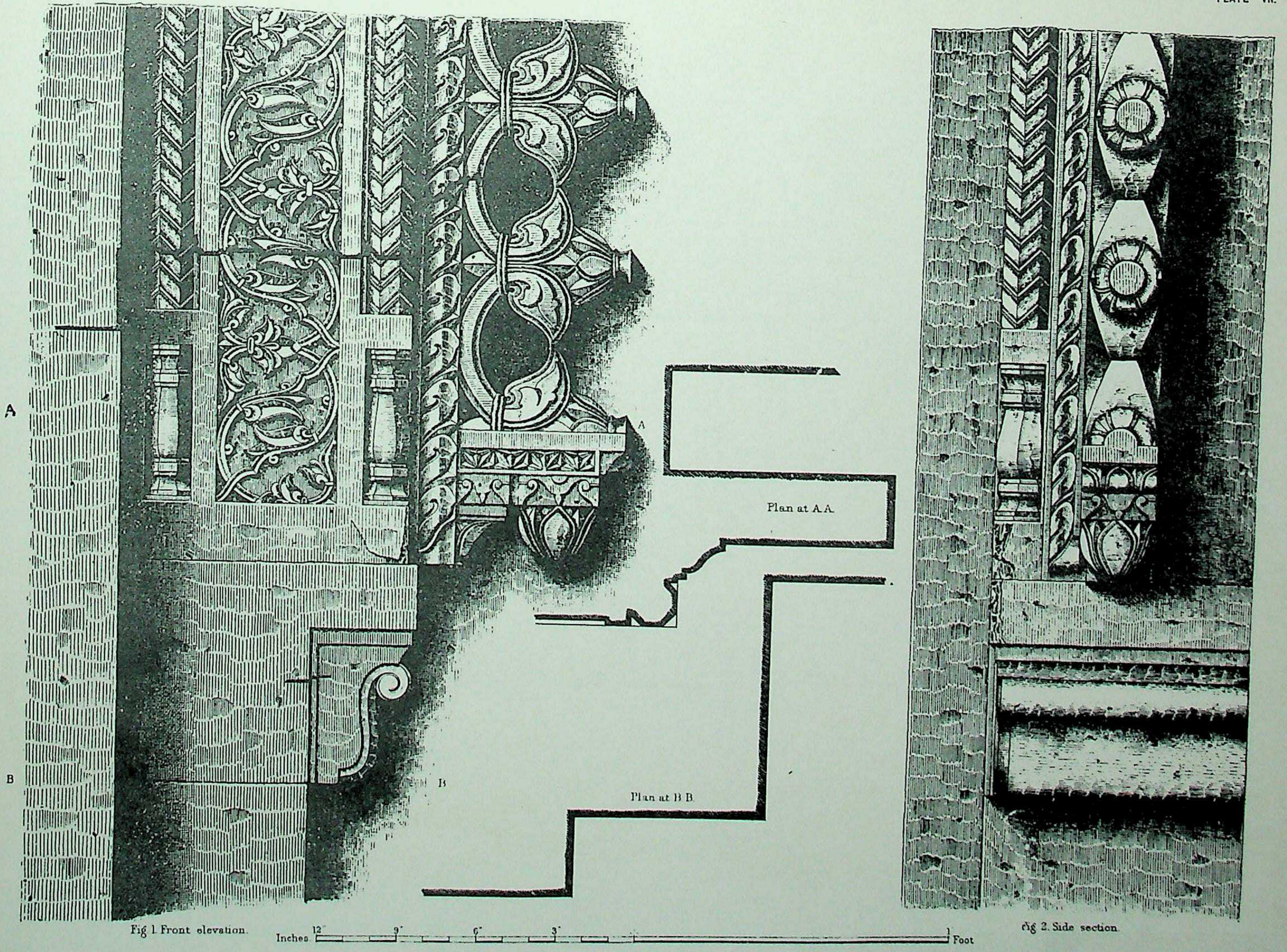
TECHNICAL ART SERIES – 1898.

PLATE VI

GOVT ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH, No 514.


Plan at a
Inches
12"
9"
6
3"
1 Foot

DETAIL OF CARVED SPANDRIL OVER THE PRINCIPAL MIHRAB OF THE JÂMÍ MASJID FATEHPUR SIKRI


A
B
A
B
Plan at A.A.
Plan at B.B.
Fig 1. Front elevation.
Inches 12" 9" 6" 3" 1 Foot
Fig 2. Side section.

DETAIL OF ARCH OVER THE PRINCIPAL MIHRÂB OF THE JÂMÎ MASJID, FATEHPUR SIKRI

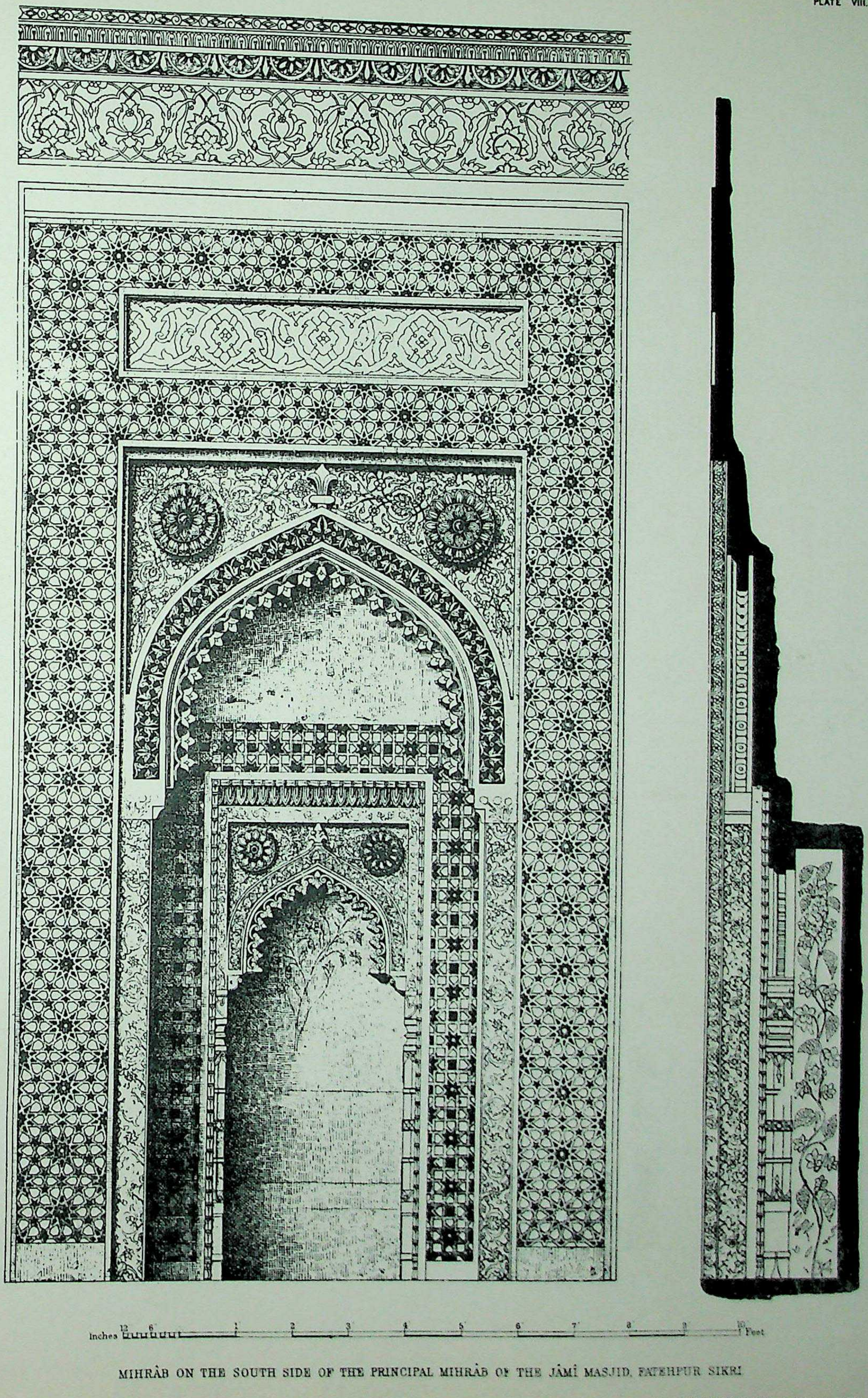
Photo-etching.

Survey of India Offices Calcutta, September 1898.

TECHNICAL ART SERIES — 1898.

Govt. Archæological Survey of N. W. Provinces & Oudh, No. 516.

PLATE VIII.


Inches 12 6
1
2
3
4
5
6
7
8
9
10 Feet

MIHRÂB ON THE SOUTH SIDE OF THE PRINCIPAL MIHRÂB OF THE JÂMÎ MASJID, FATEHPUR SIKRI.

Photo-etching

Survey of India Offices, Calcutta, September, 1898.

TECHNICAL ART SERIES, 1898.

PLATE IX.

PILASTER OF MEDIÆVAL RUINED JAINA TEMPLE AT ATRU-GANESHGANJ IN THE KOTAH STATE, EASTERN RAJPUTANA.

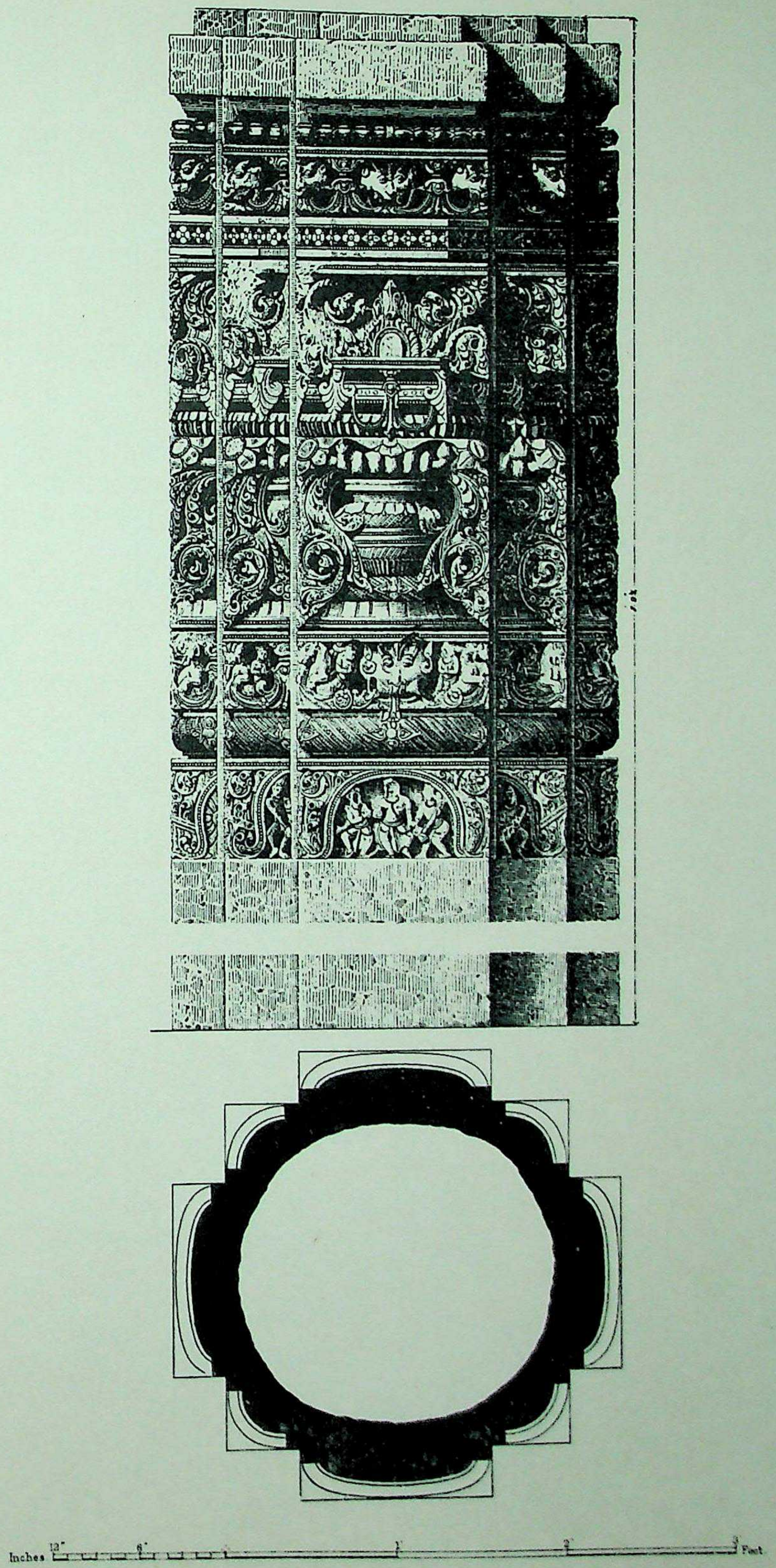
THIS plate represents a beautiful octagonal pilaster, about 8′ 9¾″ high and carved out of a finely grained red sandstone, supporting the portico of a large ruined Jaina temple at Atru-Ganeshganj in Nizamat Kunjer of the Kotah State in Eastern Rajputana. According to a well-preserved inscription incised on the lower portion of the pilaster, the temple was erected by King Jayasimha in Samvat 1319, or A. D. 1261-62. By far the greater part of the shaft is covered with rich ornaments of the foliated character, while the rest of the ornamentation consists of a series of *sârdûla* heads, from the mouths of which fall elegant beaded loops with intervening tasselled beaded cords; a round short-necked wide-mouthed vase, with floral devices hanging down from its sides; and rampant monsters or *sârdûlas*, with flat broad heads, obliquely ribbed faces, horned eyes, moustaches, and ridge-like noses, and small human figures astride these rearing monsters. In the lowest compartment erect human figures, sculptured in relief, are standing under a beaded half-circle. The ornamentation, employed in the decoration of this pilaster, is extremely rich, and none of the eight sides of the shaft are the same, the sculptor having revelled in diversity, while harmony at the same time pervades all. This pilaster is an extremely pleasing piece of Indian National Art, not only on account of the beauty of its execution, but by reason of its truthfulness to nature.

A. FÜHRER.

TECHNICAL ART SERIES — 1898.

GOVT. ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & OUDH.

PLATE IX.


10½
Inches 12" 6" 1' 2' 3' Feet

PILASTER OF MEDLÆVAL JAINA TEMPLE, KOTAH STATE, EASTERN RAJPUTANA.

TECHNICAL ART SERIES, 1898.

PLATE X.

ANCIENT IMAGE OF VISHNU FROM BATESAR.

THIS plate represents an half-sized image of Vishnu, sculptured out of greyish sandstone, and dating from about the Middle Ages. The lower halves of the two legs and of three arms are wanting, whilst in one of the left hands he holds still the conch, one of his emblems. The head is crowned with a cylindrical-shaped jewelled diadem, and there is an ornate halo or disc of glory at the back of the head. The hair is falling in long ringlets on each side of the back of the head; the ears are long and slit and embellished with earrings. The body is richly decked with necklaces, armlets and bracelets. The Brahmanical thread passes over the left shoulder. An ornamental wreath passes round from the back of the shoulders over the arms just above where they are broken off at the elbows, and a portion of the continuation of the same wreath plainly appears again passing over the front of the legs where they are mutilated. The lower part of the body from the waist downwards, and what remains of the legs, are clothed in a thin garment which is tied at the waist by a cord. A kind of sash hangs loosely round the loins and is tied in a loose single knot on the left side.

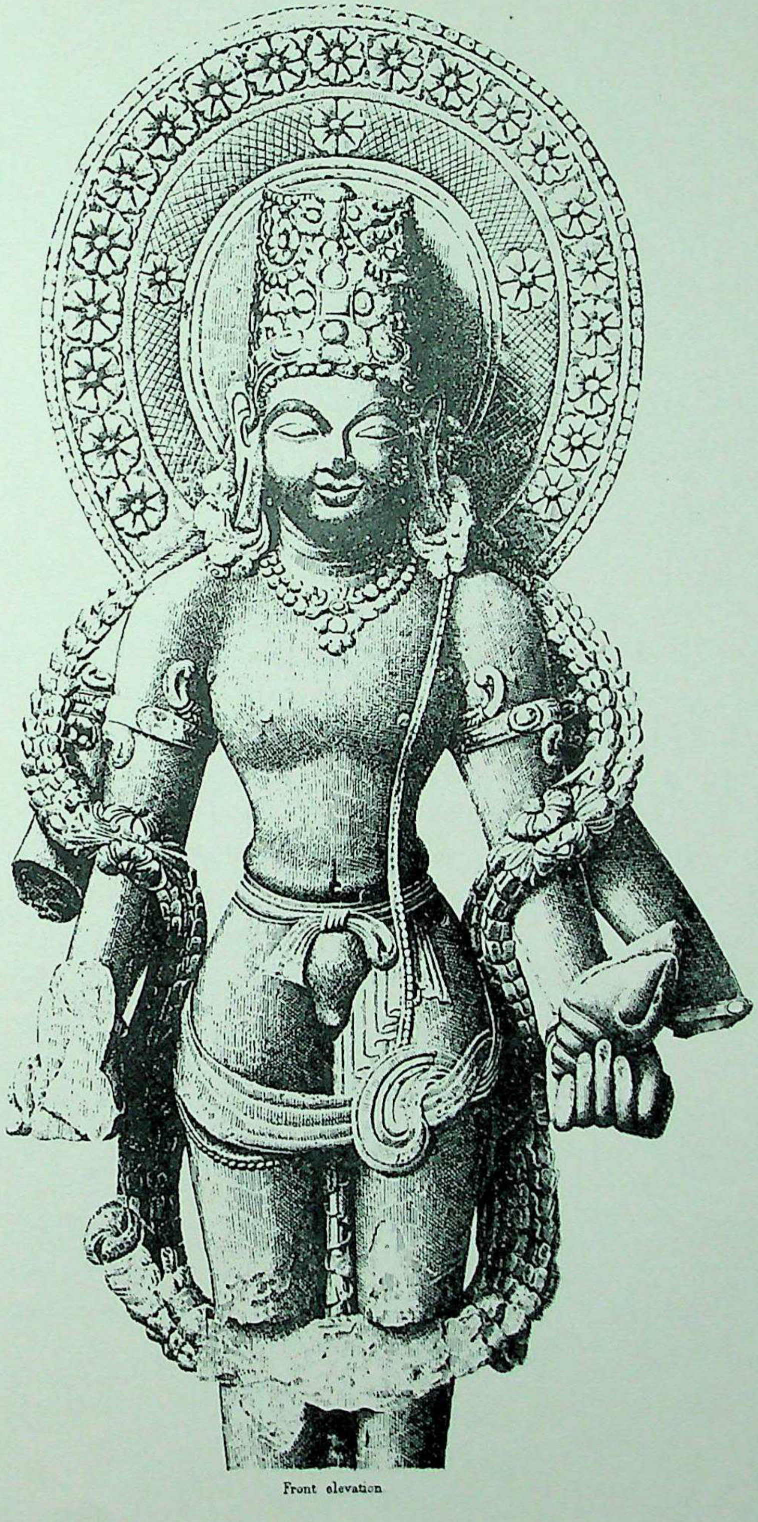
The image was found, some years ago, lying exposed on a slope near the head of a ravine close to the Jumna at Batesar, the ancient Sûryapura, in the Agra District. The original is now in the Lucknow Provincial Museum.

A. FÜHRER.

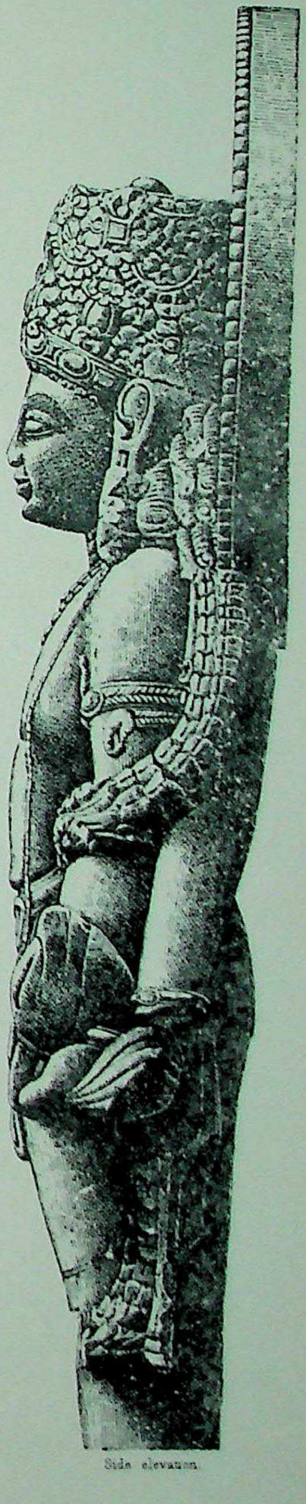
TECHNICAL ART SERIES - 1898.

PLATE X.

Govt Archæological Survey of N.W. Provinces & Oudh.



Front elevation



Side elevation.

Inches
12"
9
6
3
1
Foot

ANCIENT IMAGE OF VISHNU FROM BATESAR

Photo-etching

Survey of India Offices Calcutta, September 1898.

TECHNICAL ART SERIES, 1898.

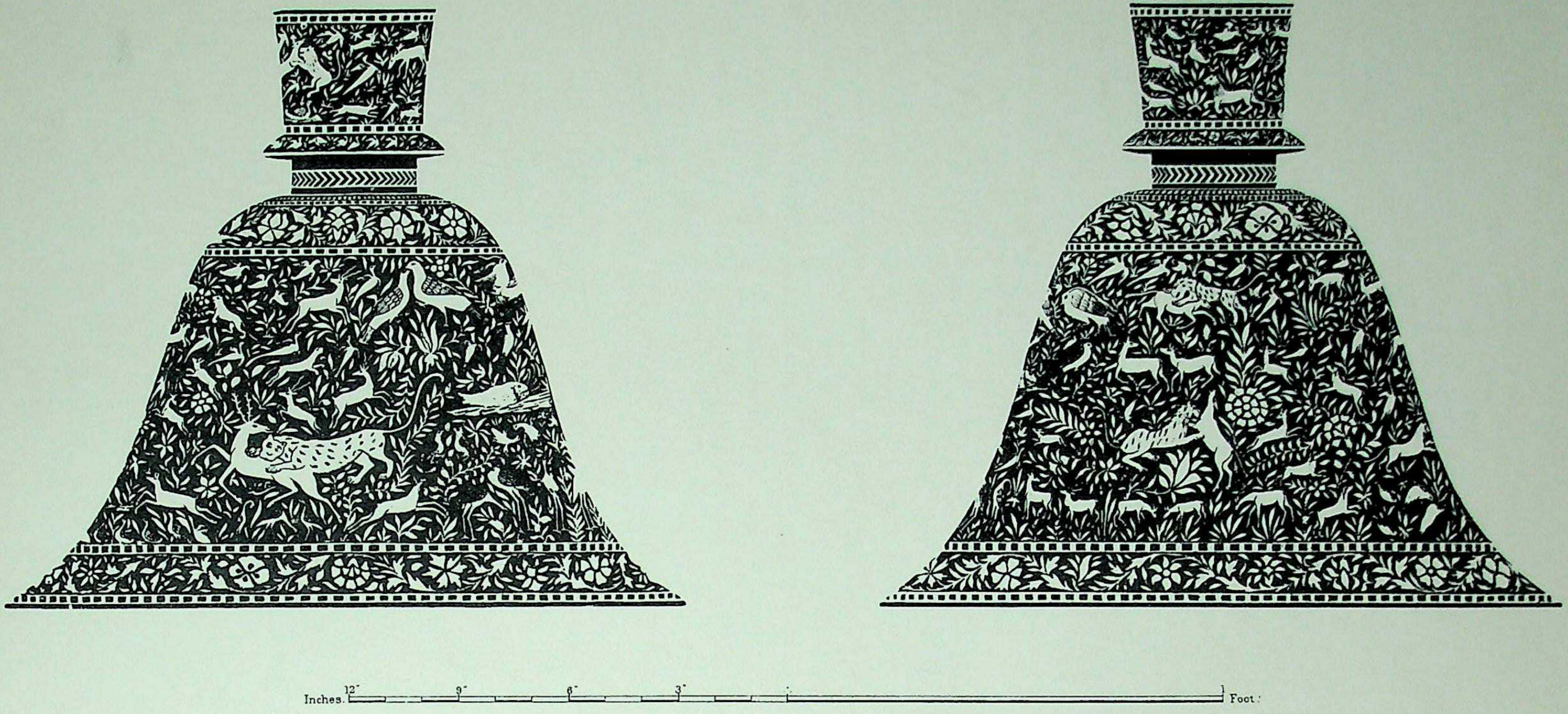
PLATE XI.

OLD BIDRI WARE FROM LUCKNOW: A HUQQA-BOTTOM, DATED A. H. 1230.

THIS plate illustrates a very pleasing example of the peculiar inlay metal work known as *bidri* ware. It derives the name from its original home, the town of Bidar, about 75 miles north-west of Haidarabad in the Dakhan, whence this industry was introduced into Lucknow by the Nawabs of Oudh in the beginning of this century, and at whose Court it attained a high state of excellence. Since the downfall of the Lucknow dynasty in 1855, it is steadily declining, as the demand for good and expensive work in the shape of *huqqá*-bottoms, *surahis* (water-goblets), spittoons, betel-boxes, drinking cups, flower-vases, plates, and trays has virtually ceased. It is, however, to be hoped that the interest in the indigenous art manufactures of India, now awakened in Europe and America, will yet save this industry from utter extinction. The ware is made of an alloy of copper, zinc, lead, and tin, or steel-powder; the proportions of these metals vary. The surface of the vessels moulded, cast, and finished on the lathe in the required forms is engraved, the patterns required for inlaying being scratched on the surface with a graver; thin silver plates are then inserted in the lines thus carved, and consolidated by hammering until the patterns appear inlaid. The surface is finally blackened with a composition, the compound parts of which vary. This process imparts the peculiar and permanent black hue which causes the silver patterns to apparently stand out in striking relief. The excellence and value of the ware depend not only on the artistic designs, but on the depth of the engraving and the corresponding amount of the precious metal employed. The oldest and best work is marked by bold and simple patterns, as the Lucknow *bidri* worker of the beginning of this century went direct to nature for his designs, and the results of his labours in combining groups of animals with foliage show that he must have been a keen observer. The original *huqqá*-bottom, illustrated on this plate, which bears the date A. H. 1230, or A. D. 1815, is now in the possession of an influential Nawab family at Lucknow.

A. FÜHRER.

Govt Archæological Survey of N. W. Provinces & Oudh.



OLD BIDRI WARE FROM LUCKNOW – A HUQQA BOTTOM DATED A. H. 1230

Photo-etching.

Survey of India Offices Calcutta, September 1898

TECHNICAL ART SERIES, 1898.

PLATES XII AND XIII.

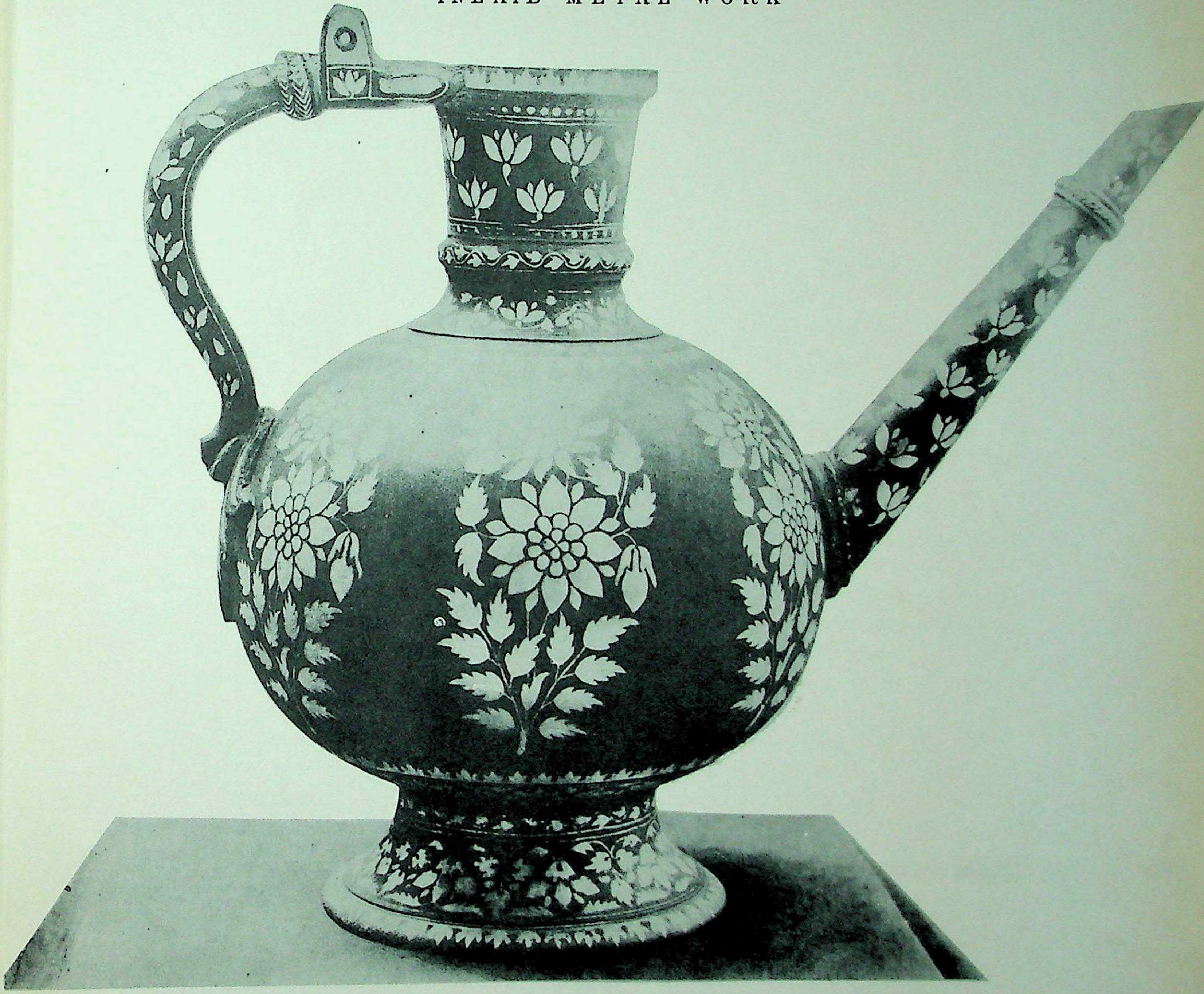
INLAID METAL WORK.

PLATE XII. A very fine example of old Bidri work, better in style than the last. The style of design is pure Persian, and is distinguished by the breadth of treatment, fine drawing and thoroughness of execution which are nearly always found in old oriental work. It will be observed how much value is given to the ornament by a sufficient contrast of plain spaces. In modern Indian work the ornament is invariably fussy, overcrowded and carelessly drawn. The silver inlay is thicker than in modern work, and so carefully done that, though the vessel is certainly more than 50 years old and has been roughly used, not a piece has worn off. The lid of the vessel is missing.

Plate XIII. A huqqa-bottom, also of Bidri work. This example shows the influence of Italian Art, which was introduced into India in the Mogul period. The result in this instance is not unpleasing, because the designer has known how to adapt what he has borrowed to the purpose he had in view. It is the want of this knowledge which nearly always causes the modern Indian workman to fail miserably, when he attempts to borrow European designs.

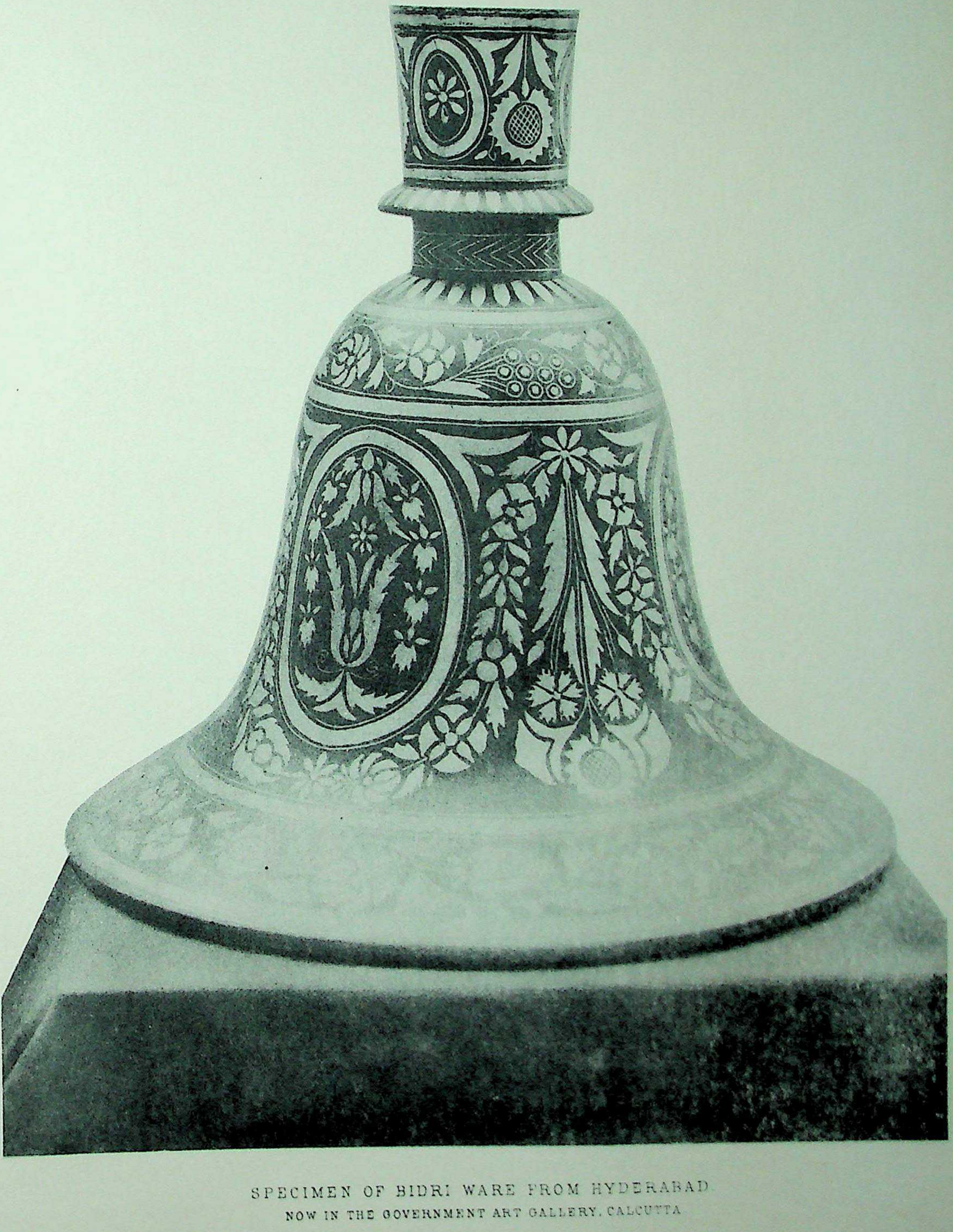
E. B. HAVELL.

INLAID METAL WORK



SPECIMEN OF BIDRI WARE FROM HYDERABAD.
NOW IN THE GOVERNMENT ART GALLERY, CALCUTTA

INLAID METAL WORK



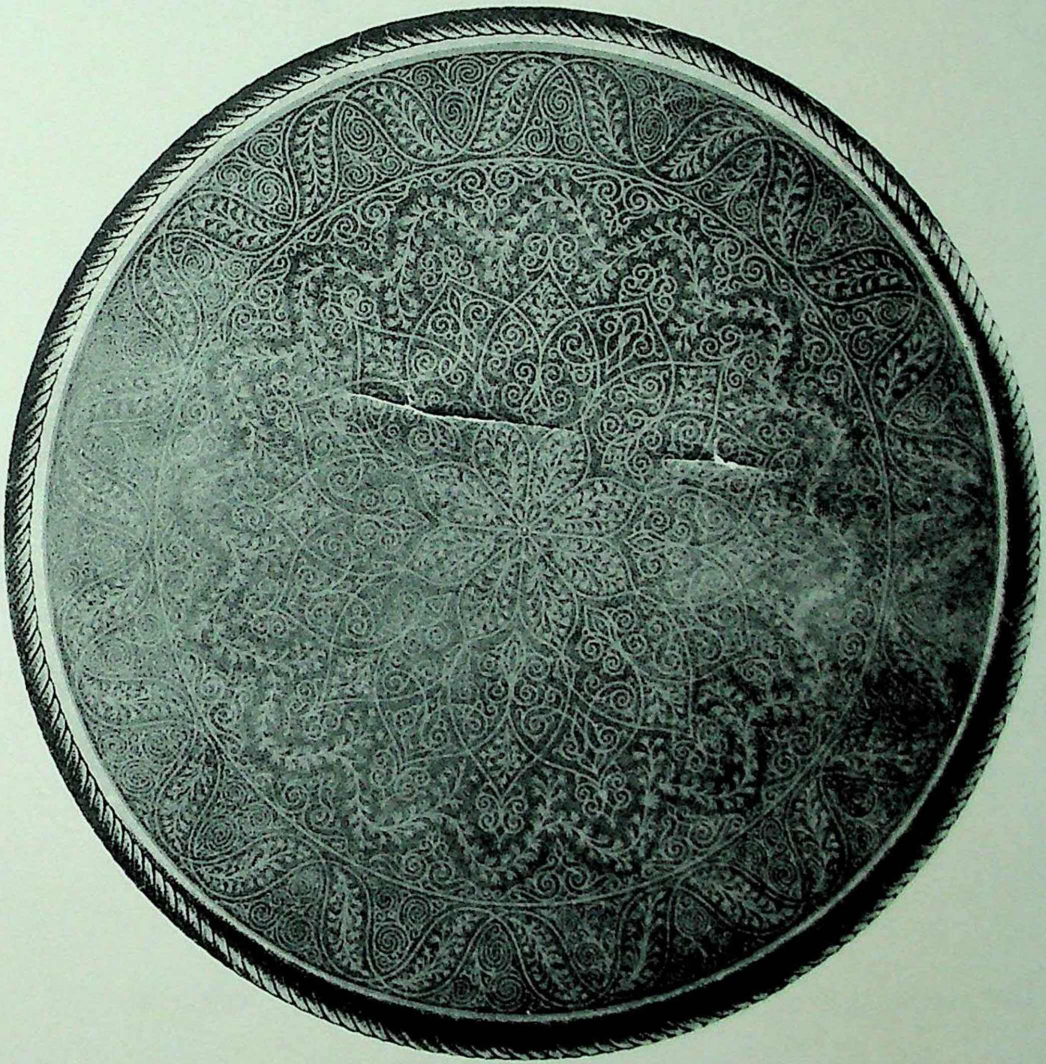
SPECIMEN OF BIDRI WARE FROM HYDERABAD.
NOW IN THE GOVERNMENT ART GALLERY, CALCUTTA.

TECHNICAL ART SERIES, 1898.

PLATE XIV.

OLD PERSIAN DAMASCENED PLATE.

THE illustration represents an old Persian damascened plate richly ornamented with most intricate and well executed scrolls and flowers now in the Art Section of the Museum at Lucknow. The plate itself is probably steel, and the inlaid ornamentation upon it is of gold wire. The workmanship is particularly fine and well executed It is closely allied to that upon an old damascened shield also in the Lucknow Museum, an illustration of which appeared in this Journal for Part 1897.



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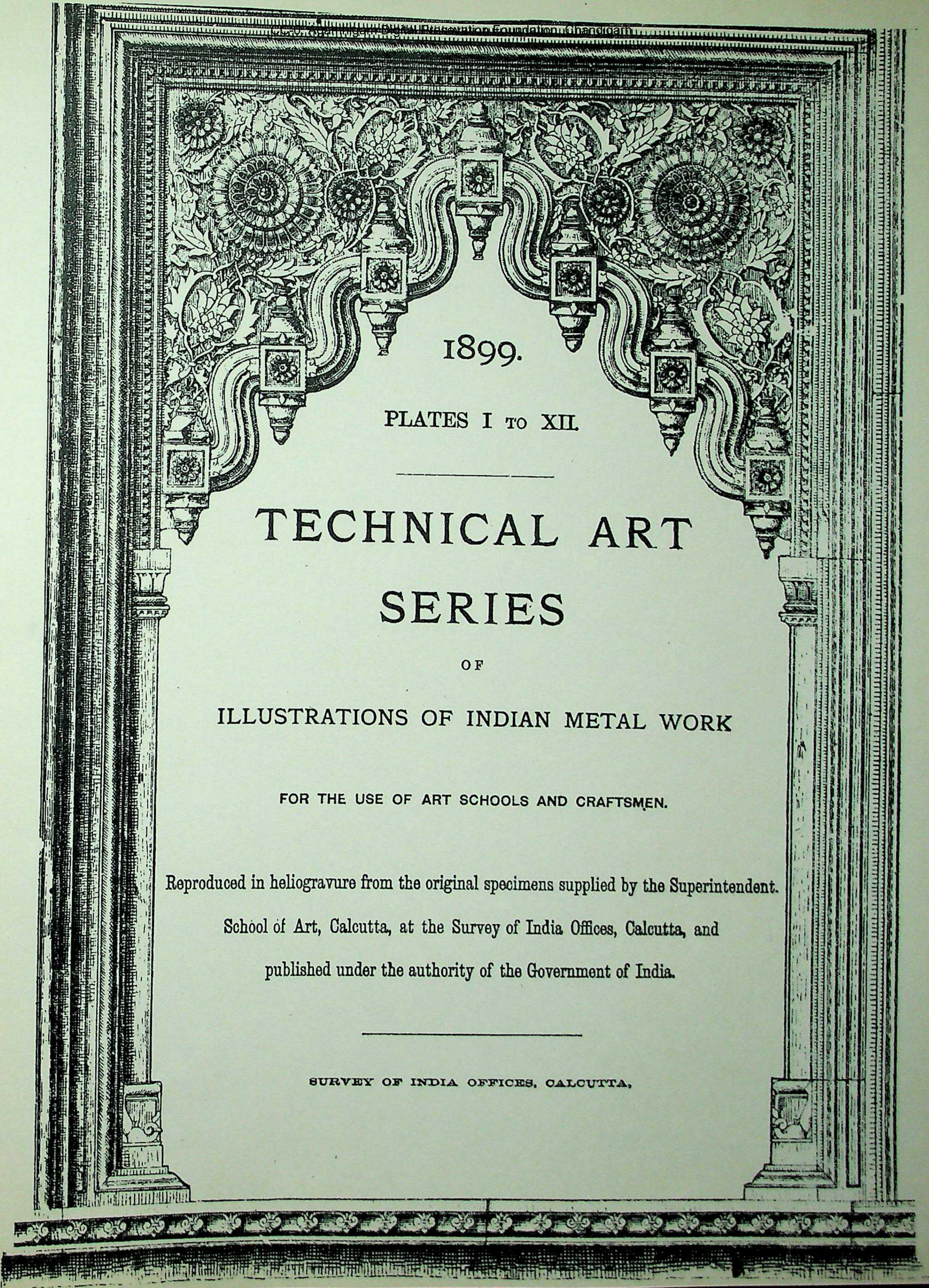


1899.

PLATES I TO XII.

TECHNICAL ART SERIES

OF

ILLUSTRATIONS OF INDIAN METAL WORK

FOR THE USE OF ART SCHOOLS AND CRAFTSMEN.

Reproduced in heliogravure from the original specimens supplied by the Superintendent.
School of Art, Calcutta, at the Survey of India Offices, Calcutta, and
published under the authority of the Government of India.

SURVEY OF INDIA OFFICES, CALCUTTA.

CONTENTS.

PLATE I A Bronze Incense-Burner from Nepal.
" II Bronze Water-Vessel from Nepal.
" III Bronze Lamp from Nepal.
" IV Brass Lamp from Nepal.
" V A Teapot, Copper and Silver, from Nepal.
" VI A Copper-gilt Helmet for a Buddhist figure (front view) from Tibet.
" VII A Copper-gilt Helmet for a Buddhist figure (side view) from Tibet.
" VIII Bronze Lamp from Nepal (differing).
" IX A Copper Repousse Jar, Madras Work.
" X A Copper Repousse Panel, Madras Work.
" XI A Sweetmeat Seller's Lamp from Delhi.
" XII A Silver Hookah.

TECHNICAL ART SERIES, 1899.

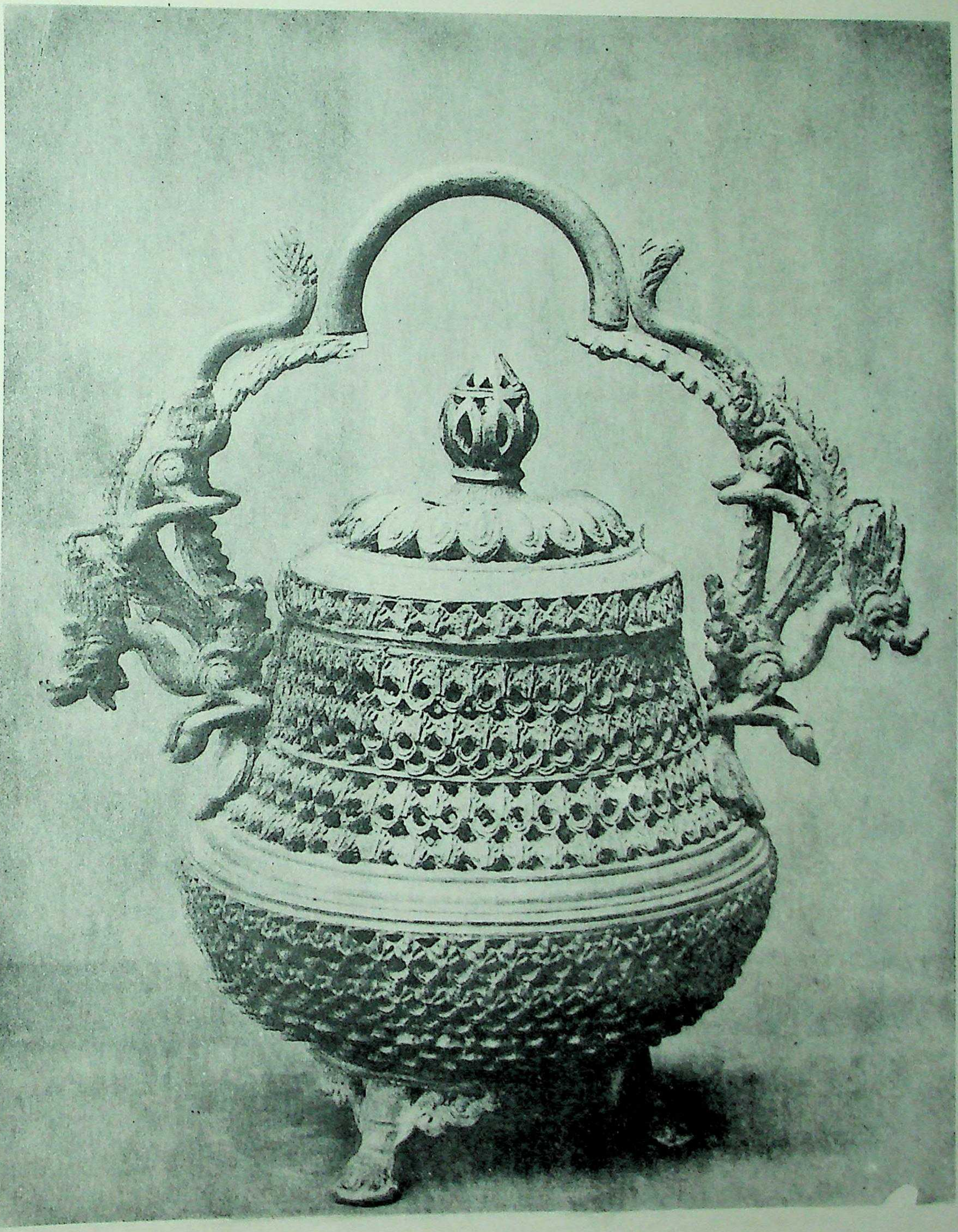
PLATE I.

A BRONZE INCENSE BURNER, FROM NEPAL, IN THE COLLECTION OF THE GOVERNMENT ART GALLERY, CALCUTTA.

THE objects illustrated in this and the three following plates are vessels used in the Hindu temple service in Nepal. They are characteristic of the fine old metal work of that part of India. For originality, boldness of design and feeling for form the metal work of Nepal is the best that India has produced. Unfortunately, like most other of the old arts of Nepal, it is now in a state of decadence and likely to become extinct, chiefly owing to the example of the Maharajah in building a palace in Anglo-Indian style and introducing European fashions into the country. The specimen here given is an incense burner, cast in bronze by the *cire perdue* process and left in the state in which it came from the mould. The body of the vessel and the lid are perforated. The most interesting part of the vessel is the fine design of the gryphons forming the lower part of the handle. The plain upper part of the handle, intended for the hand to grasp, is rather carelessly joined on to the ornamental lower portions ; very likely it is a restoration.

(*Total height 10½ inches.*)

E. B. HAVELL.



A BRONZE INCENSE-BURNER, FROM NEPAL

TECHNICAL ART SERIES, 1899.

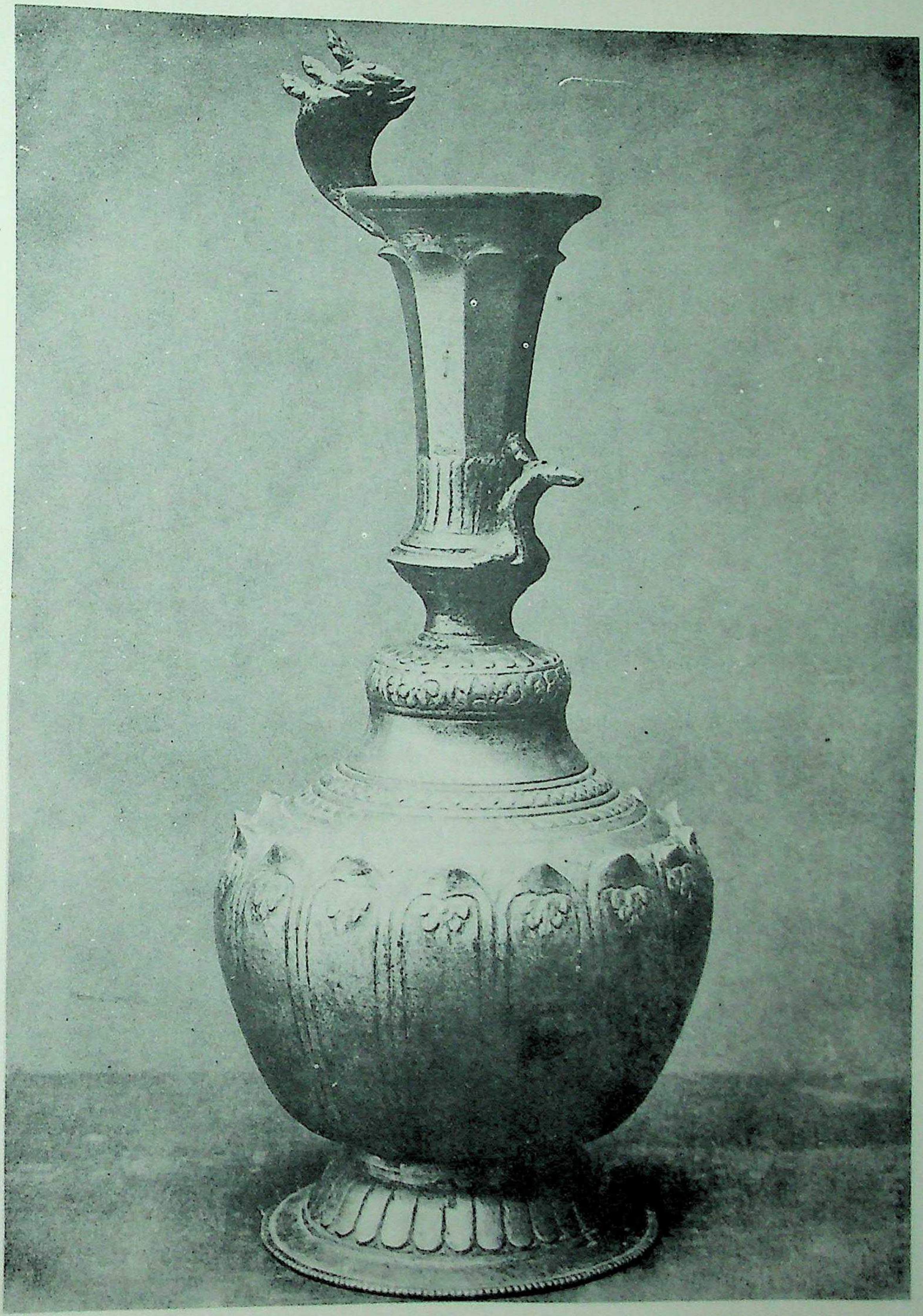
PLATE II.

BRONZE WATER-VESSEL, FROM NEPAL, IN THE COLLECTION OF THE GOVERNMENT ART GALLERY, CALCUTTA.

THIS is a water-vessel for the Hindu temple service, cast in bronze and tinned, and ornamented in a very original way with two cobras heads. Many of the shapes intended for hammered work are now cast in moulds by the *cire perdue* process for the sake of cheapness; they are consequently very heavy and inconvenient for carrying, but they still retain the traditional shapes and fine design of the old work. This example is excellent in form and in the skill with which the ornament is applied exactly in the right places and in the right quantity. The cleverness with which the designer has made the cobras heads to grow out of the lines of the vessel and avoided an appearance of their being only stuck on to it, should be remarked.

(*Total height 14¾ inches.*)

E. B. HAVELL.



BRONZE WATER-VESSEL FROM NEPAL

TECHNICAL ART SERIES, 1899.

PLATE III.

BRONZE LAMP FROM NEPAL.

THIS is another modern example of an old traditional design, intended for hammered work, reproduced in bronze casting. It is left untouched from the mould ; the marks of the tool on the original wax model are clearly reproduced in the casting. As in the former examples, the designer shows great skill in placing the ornamental details, such as the monkey on the handle and the two peacocks on the oil receptacle, in their right places. The peacock springing out from the centre of the vessel is the top of the spoon used for ladling the oil into the receptacle in front.

(*Total height 11¼ inches.*)

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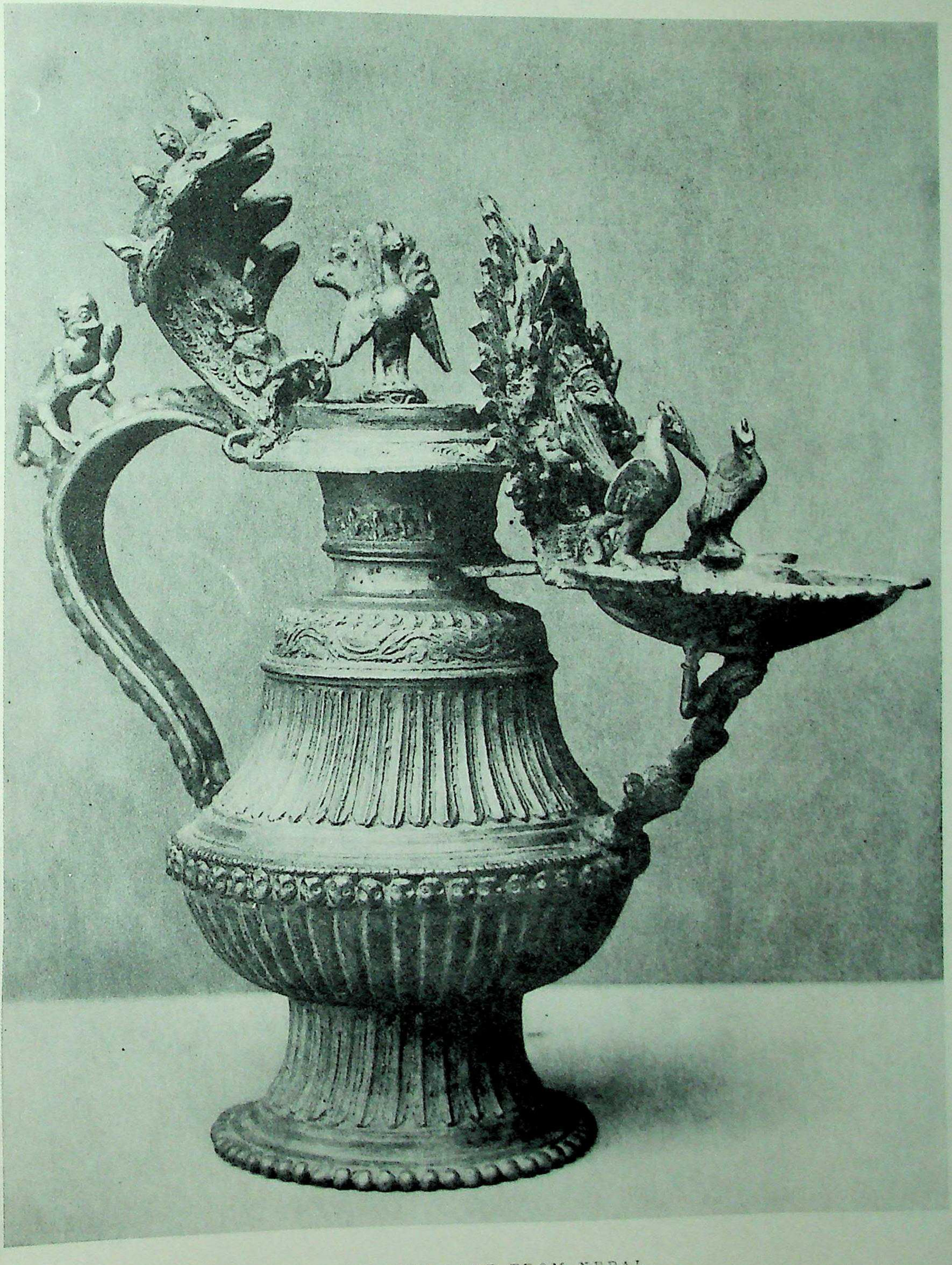

BRONZE LAMP FROM NEPAL.

TECHNICAL ART SERIES, 1899.

PLATE IV.

BRASS LAMP, FROM NEPAL, IN THE COLLECTION OF THE GOVERNMENT ART GALLERY, CALCUTTA.

THIS is a Hindu temple lamp like the last example, but an old specimen in beaten brass. The deity to which it is dedicated is the Lion incunation of Vishnu, who is represented as holding a human victim on his knees.

(*Total height 10 inches.*)

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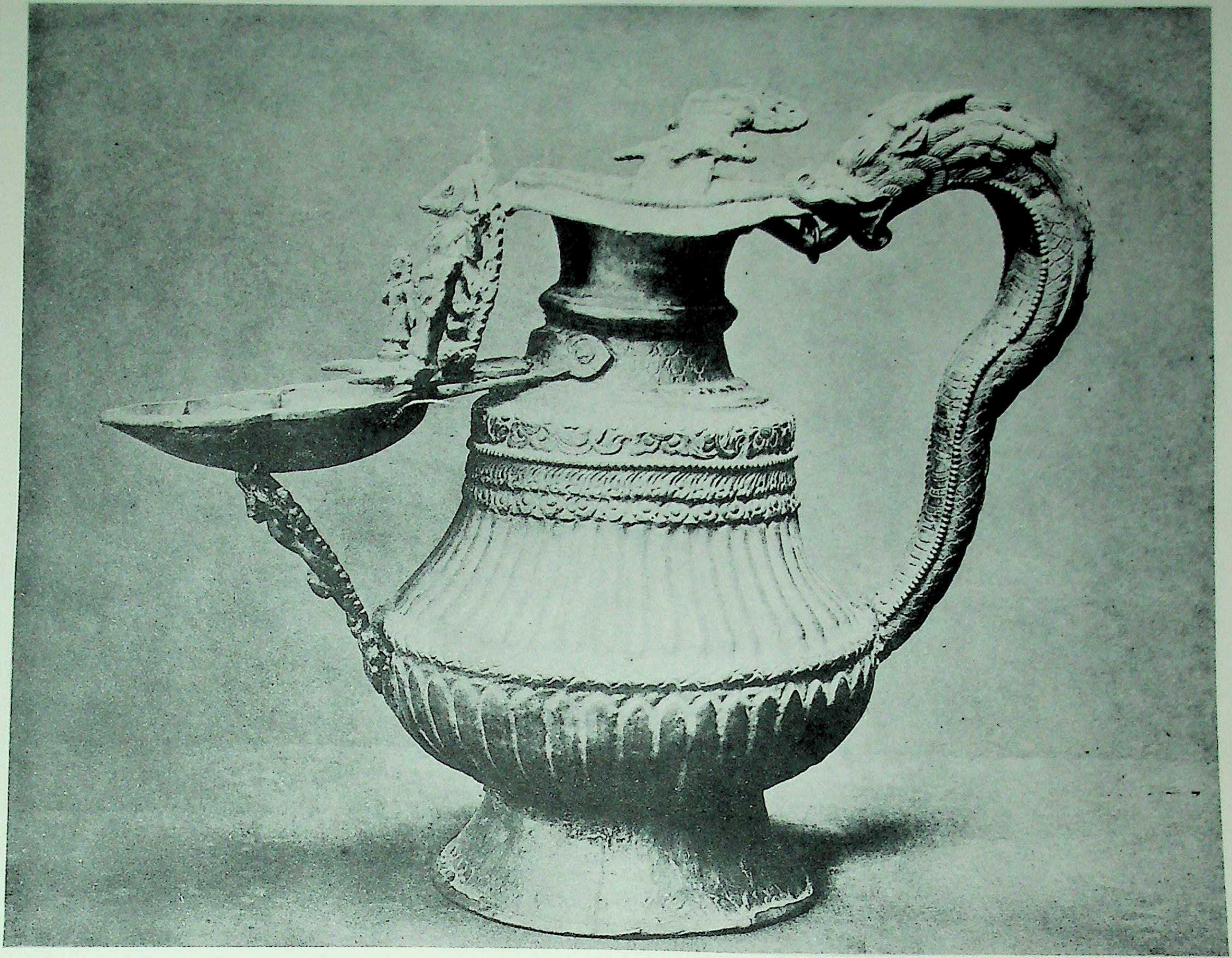


BRASS LAMP FROM NEPAL.

TECHNICAL ART SERIES, 1899.

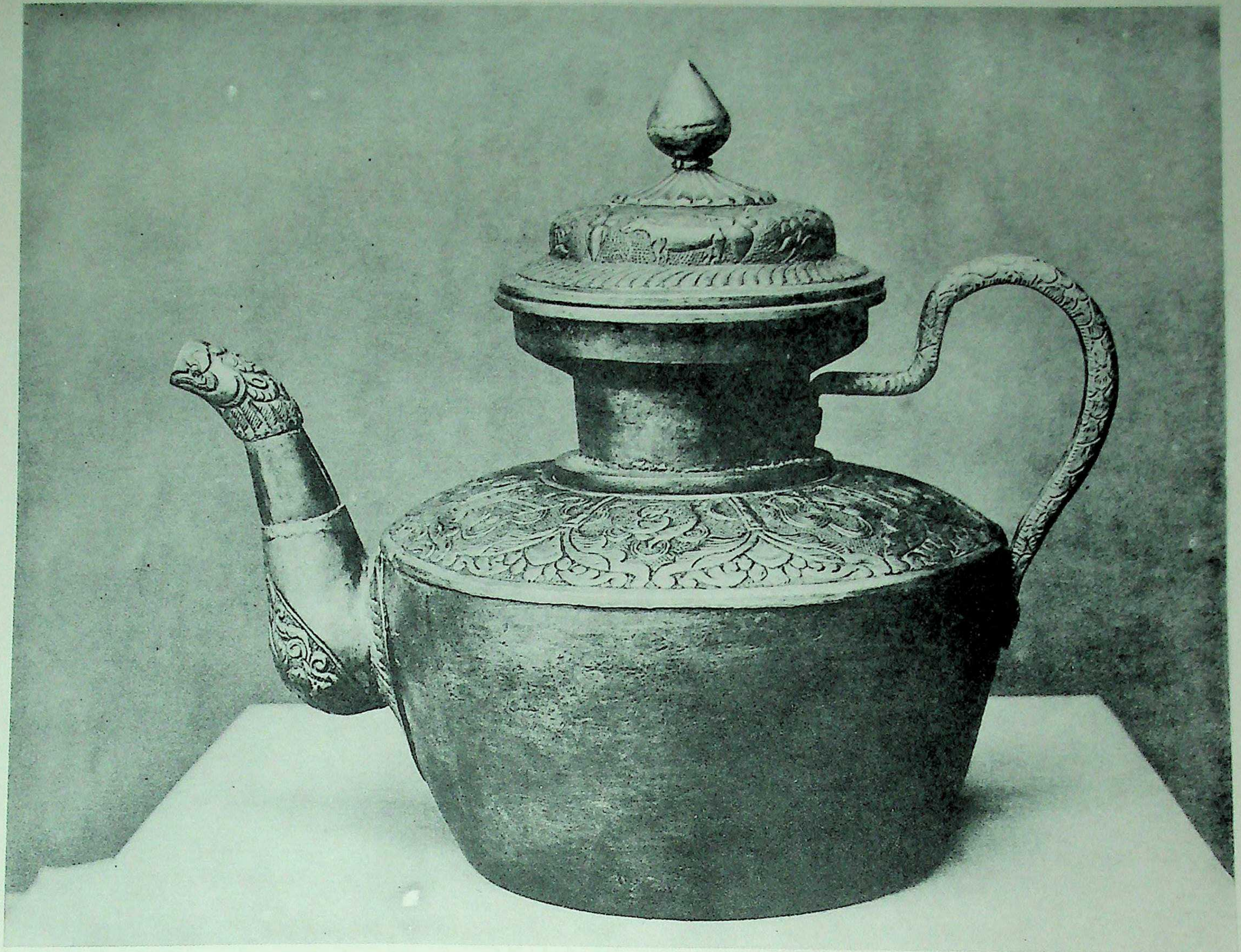
PLATE V.

A TEAPOT, FROM NEPAL, COPPER, SILVER AND BRASS.

A fine specimen of Thibetan work. The body of the teapot is of copper, the lower part and the neck of the vessel being plain. The upper part as well as the rim of the lid and parts of the spout are overlaid with silver, chased with Buddhist emblems. The handle, the moulding which joins the body of the vessel and the neck, and the rosette, or conventional lotus flower, which connects the lid with the knob at the top (itself a Buddhist emblem) are brass. The whole teapot is remarkable for its fine form and the skill with which the different metals are combined for their decorative effect.

(*Total height 10¼ inches.*)

E. B. HAVELL.



A TEAPOT FROM NEPAL, COPPER & SILVER.

TECHNICAL ART SERIES, 1899.

PLATES VI AND VII.

A COPPER GILT HELMET FOR A BUDDHIST FIGURE, FROM THIBET, IN THE COLLECTION OF THE GOVERNMENT ART GALLERY, CALCUTTA.

TWO views of a very fine helmet of Thibetan work intended for the head of a Buddhist statue. It is of gilt copper ornamented with repoussé Buddhist figures in high relief, each placed in a shrine of conventional flames. A row of conventionalised curls appear under the back of the helmet and continues over the forehead, bound by a fillet which represented, probably, a gold or jewelled amulet to protect the wearer from harm. Though this helmet is only intended for a crown or ornament for a figure of a Buddhist saint, the design is no doubt an imitation of the real fighting head dress of the Buddhist Church militant in ancient days.

(*Total height 13 inches.*)

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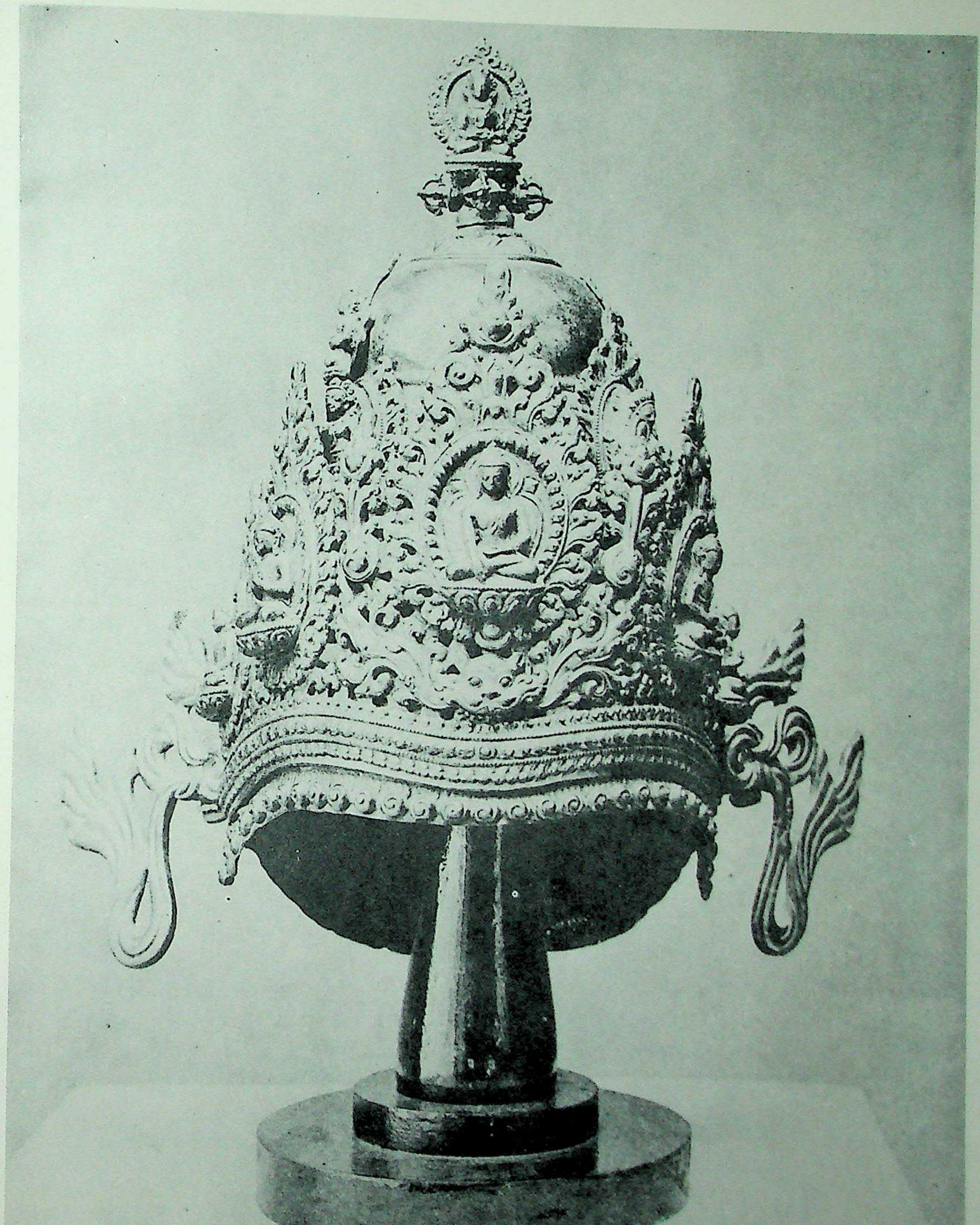
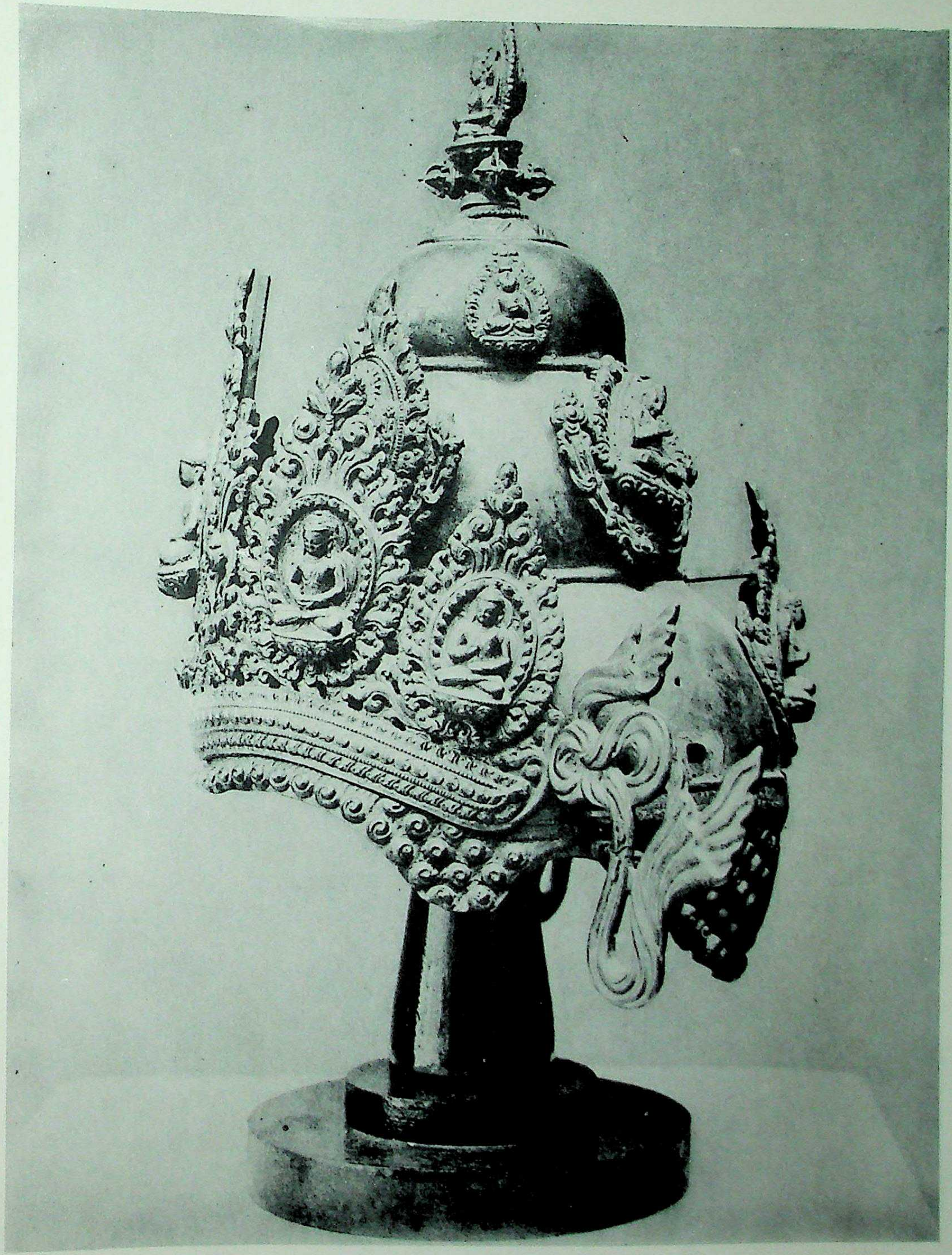


A COPPER-GILT HELMET FOR A BUDDHIST FIGURE (FRONT VIEW)

METAL WORK.



A COPPER GILT HELMET FOR A BUDDHIST FIGURE FROM THIBET

(SIDE VIEW.)

TECHNICAL ART SERIES, 1899.

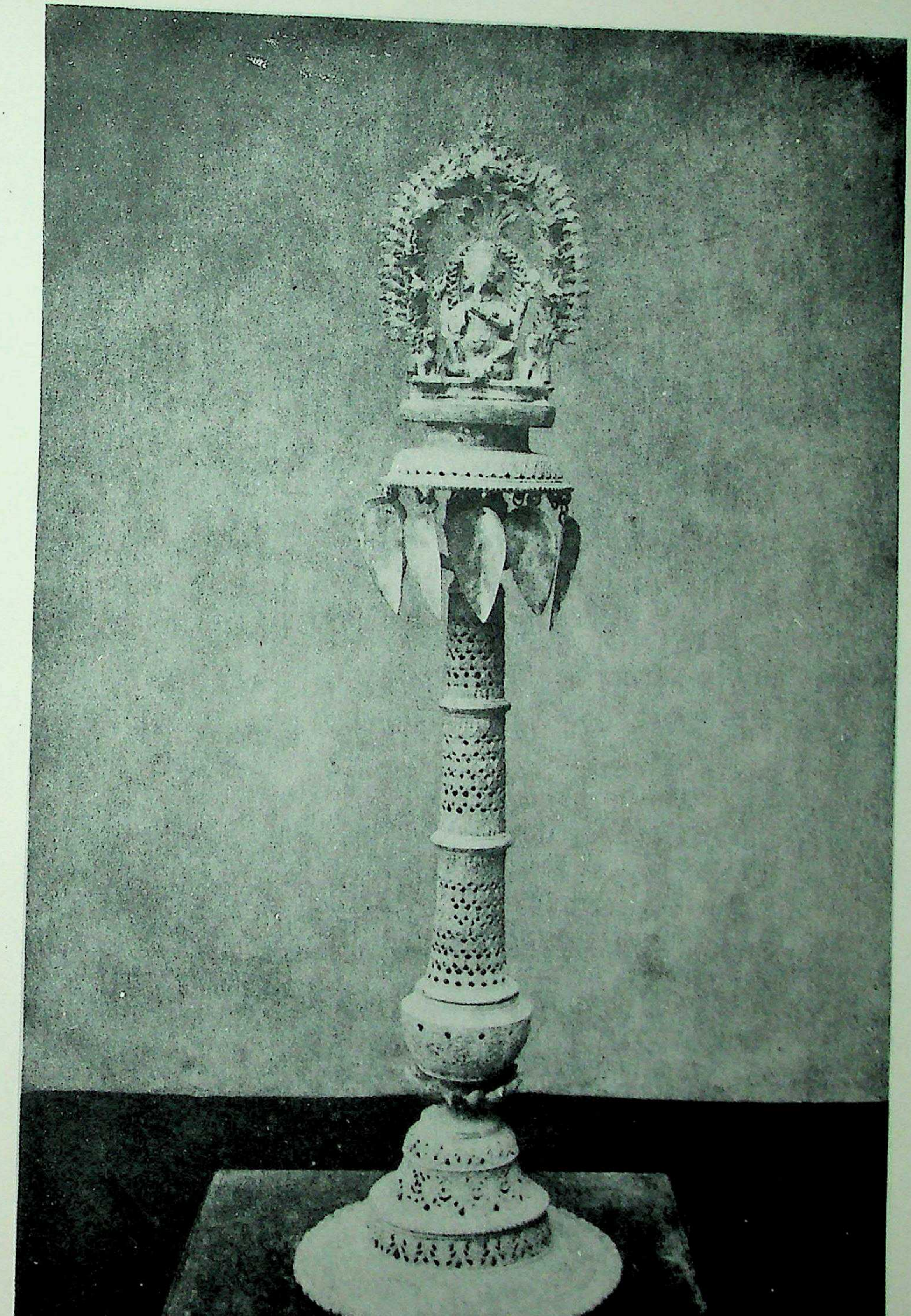
PLATE VIII.

A BRONZE LAMP, FROM NEPAL, IN THE COLLECTION OF THE GOVERNMENT ART GALLERY, CALCUTTA.

A large temple lamp, dedicated to Ganesha, of Nepalese work, cast in bronze like the examples in Plates I, II, and III. It is particularly noticeable for its elegant proportions and for the good design of the base.

(*Total height 5 feet 4¼ inches.*)

E. B. HAVELL.



A BRONZE LAMP FROM NEPAL

TECHNICAL ART SERIES, 1899.

PLATES IX AND X.

COPPER REPOUSSÉ JAR AND PANEL, MADRAS WORK, IN THE COLLECTION OF THE GOVERNMENT ART GALLERY, CALCUTTA.

THE two examples of copper repoussé work here illustrated, though quite modern, are probably as fine as any that India has ever produced. They are the work of Ramaswamy Achary, a real artist in metal, formerly employed in a temple of the Tanjore District of Madras, but now engaged as a teacher in the Madras School of Arts. The style of work, though pure Dravidian, has a strong resemblance to that of Nepal. There is, especially, the same characteristic fondness for bird and animal forms and hybrid monsters, always treated with greatest decorative skill. It would probably be impossible to find another metal worker in India with the same artistic feeling and technical skill as this man once possessed. Latterly he has become feeble in health and his work has deteriorated. It is very much to be regretted that through want of appreciation of his remarkable skill, Ramaswamy Achary's art is likely to die with him, for the metal work class of which he was in charge has been entirely neglected, and none of his pupils can produce anything above the level of the ordinary Tanjore and Trichinopoly work—that is to say, very cheap ornament executed without any artistic taste or feeling.

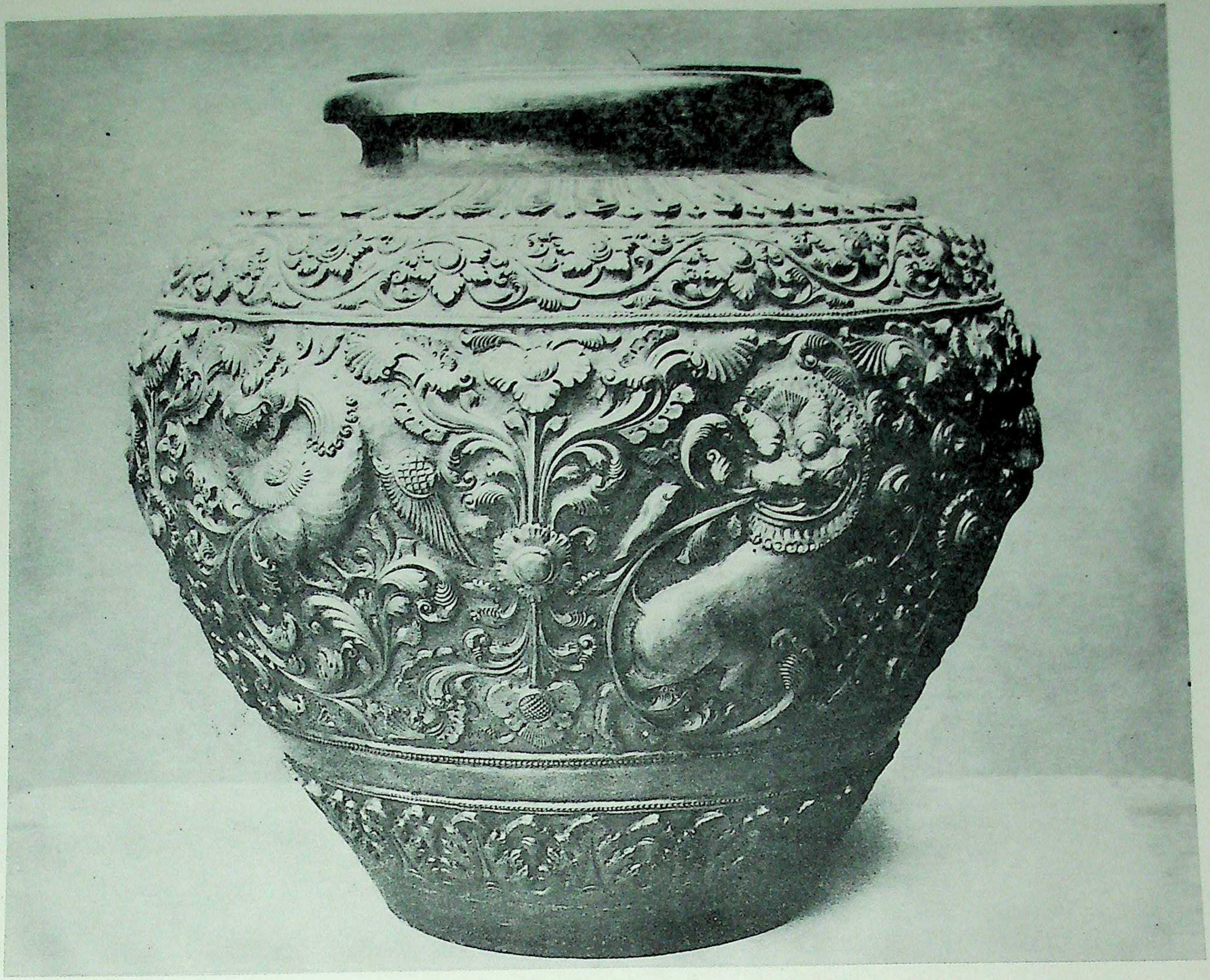
(*Total height of jar 18½ inches.*)

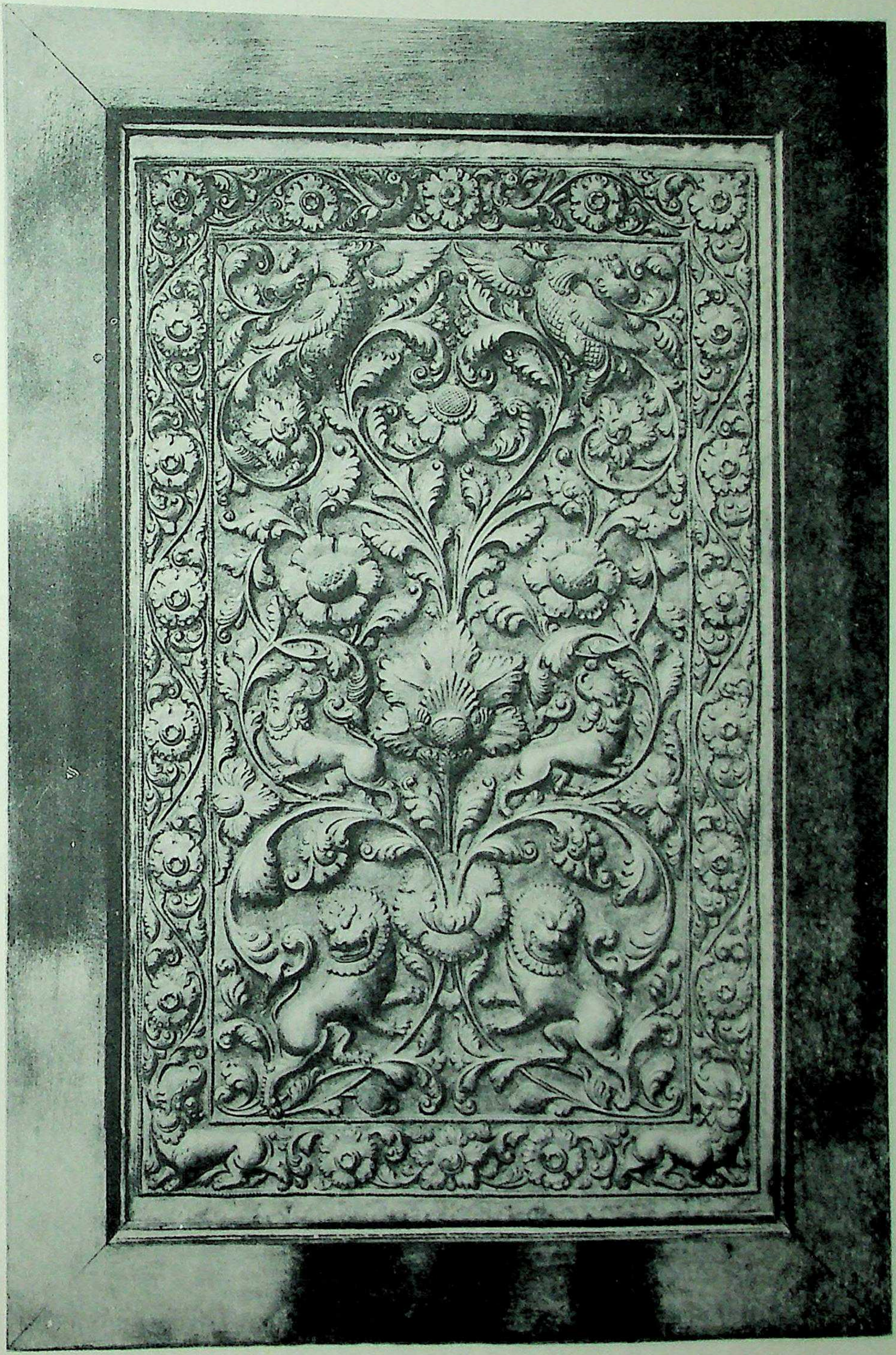
(*Panel 25 inches by 15½ inches.*)

E. B. HAVELL.

PLATE IX

METAL WORK





A COPPER REPOUSSE PANEL. MADRAS WORK.

TECHNICAL ART SERIES, 1899.

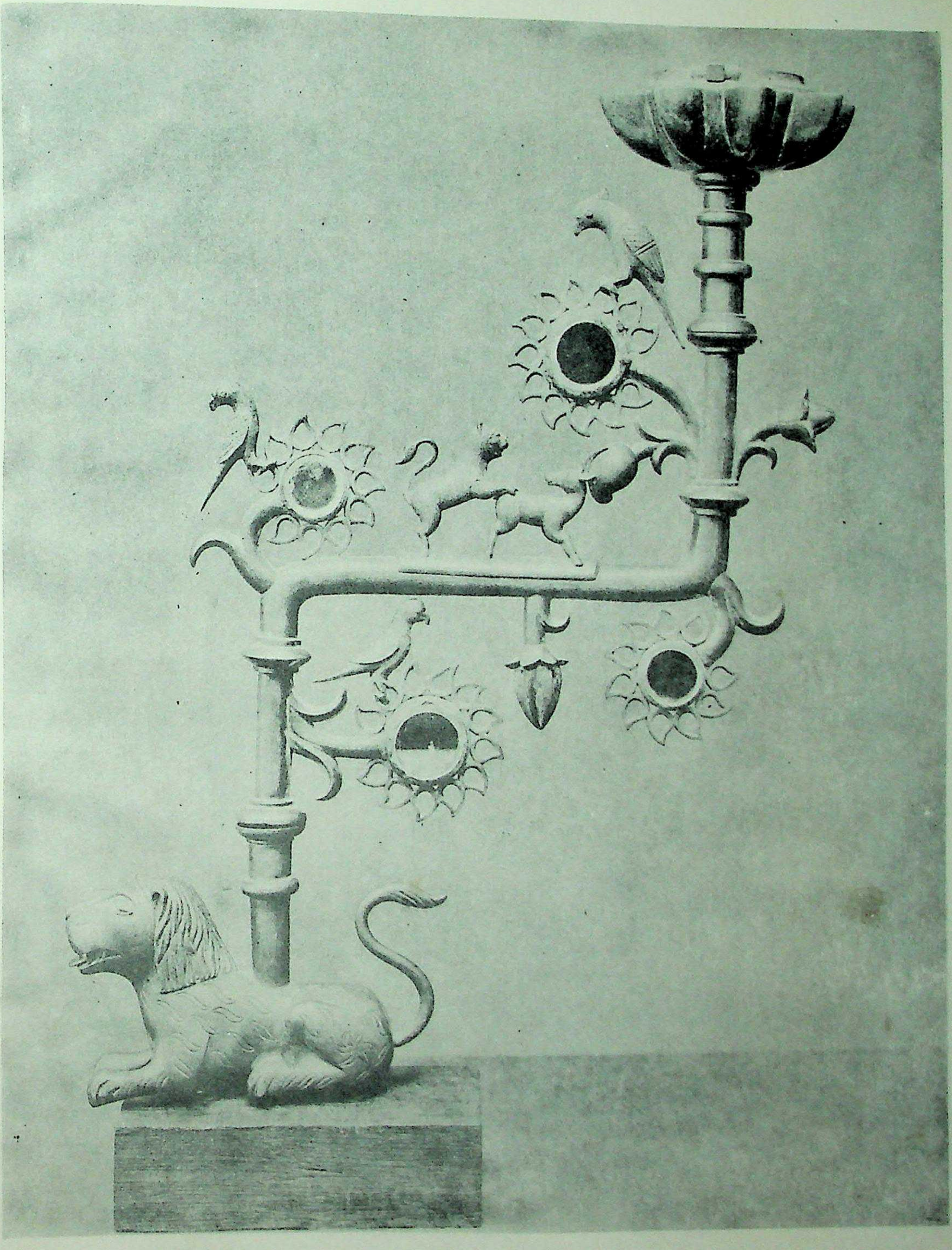
PLATE XI.

A SWEETMEAT SELLER'S LAMP, FROM DELHI, IN THE COLLECTION OF THE GOVERNMENT ART GALLERY, CALCUTTA.

BEFORE the introduction of kerosine oil these sweetmeat sellers' lamps were to be seen in every bazar in the north of India. They were fastened in pairs on the brass trays containing the sweetmeats and much skill and artistic taste were exercised in the designing of them. The lamps often remained as heir-looms in the families of the proprietors for many generations. Now it is very difficult to obtain them, as they have been almost entirely superseded by kerosine lamps. The specimen illustrated is very tastefully designed, though it would have been better had the ornament beneath the bracket been arranged so as to assist in strengthening the bracket instead of being merely ornament—an improvement which might have been easily made. Very likely this lamp is a copy by a thoughtless modern workman of a piece of finer old work, for a good designer rarely ignores practical considerations of this kind. On the whole, this lamp contains many suggestions which might be adopted for improving the design of the ugly bracket wall lamps used in most Anglo-Indian houses. The oil receptacle is incomplete, as the dome-shaped lid, generally surmounted with a peacock, is missing.

(*Total height 12½ inches.*)

E. B. HAVELL.



A SWEETMEAT SELLER'S LAMP, FROM DELHI.

TECHNICAL ART SERIES, 1899.

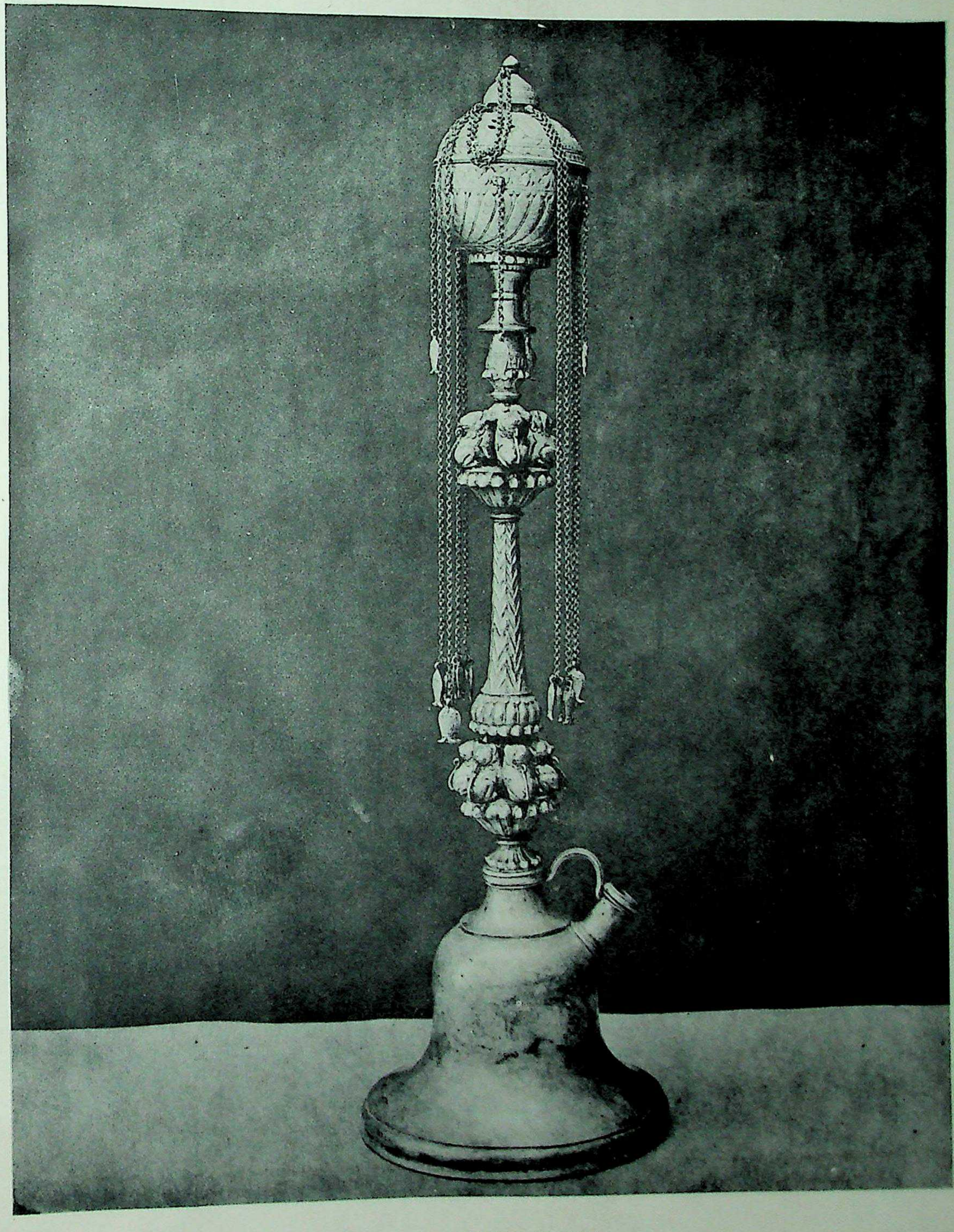
PLATE XII.

SILVER HOOKAH, IN THE COLLECTION OF THE GOVERNMENT ART GALLERY, CALCUTTA.

A characteristic specimen of Mogul design in which the influence of Italian sixteenth century design is felt, but the distinctive note of Indian art is not lost. The whole design is graceful and pleasing. In the present decadence of Indian art it seems impossible for it to assimilate foreign influence with any happy result.

(*Total height 23 inches.*)

E. B. HAVELL.



A SILVER HOOKAH

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